

**RESPONDENTS' APPENDIX**

**Volume II**

**Exhibit Book With Explanatory Statements**

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**In the United States Circuit Court of Appeals  
for the Fourth Circuit**

**OCTOBER TERM, 1942**

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**No. 4979**

**HOPE NATURAL GAS COMPANY, PETITIONER**

**v.**

**FEDERAL POWER COMMISSION, CITY OF CLEVELAND, CITY OF AKRON,  
AND PENNSYLVANIA PUBLIC UTILITY COMMISSION, RESPONDENTS**

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**ON PETITION TO REVIEW ORDER OF FEDERAL POWER  
COMMISSION**

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NICHOLS**

[Pages 1 to 22 omitted]

**WRITTEN STATEMENT**

On June 14, 1938 the directors approved an amendment to the Employees' Thrift Plan.

On December 28, 1938 the directors approved the purchase from Standard Oil Company (New Jersey) of 19,999 shares of stock of Reserve Gas Company at a price of \$1,810,000.

On February 21, 1939 H. C. Cooper resigned as President and Director and L. L. Tonkin was elected to fill these vacancies. H. R. Livingston was elected to fill a vacancy in the Board of Directors. The resignation of H. B. Schum as Assistant Treasurer was accepted and J. C. Cross was appointed to that office.

On July 10, 1939 the directors approved a further amendment to the Employees' Thrift Plan.

On July 11, 1939 the directors authorized an exchange of property between Hope Natural Gas Company, Hope Construction and Refining Company, Pittsburgh and West Virginia Gas Company, and Philadelphia Oil Company.

On September 5, 1939 the directors authorized and approved the cancellation of a large number of gas leaseholds, the list spread in the minutes occupying approximately 37 typed pages. An adjustment to rates of depreciation applied to certain classes of property was approved, effective January 1, 1938.

On December 8, 1939 the directors approved and adopted an Agreement of Consolidation or Merger dated December 8, 1939, between Hope National Gas Company and Reserve Gas Company and a special meeting of stockholders was called on December 8, 1939 to act on the agreement. After several adjournments the approval of the Public Service Commission of West Virginia was received on December 29, 1939, and the merger was consummated.

At a meeting of the directors on March 6, 1940 it was stated that the principal place of business of the company should be changed from Pittsburgh, Pa., to Clarksburg, W. Va., and a special meeting of stockholders was called for March 18, 1940, at which

meeting the stockholders passed a resolution authorizing the necessary amendments to the certificate of incorporation and by-laws.

On March 15, 1940 the treasurer of the company was authorized to sell \$4,000,000 principal amount of United States Treasury Bills and purchase a like face amount of other government securities upon the best terms obtainable with the funds realized from the sale.

On May 21, 1940 the treasurer was authorized to purchase \$2,500,000 face amount of 2½% United States Treasury Bonds due December 15, 1945, at the best price obtainable.

On September 30, 1940 resolutions were adopted pertaining to employees who are called in the future for compulsory military training.

On November 7, 1940 additional company contributions to the Employee's Thrift Plan were authorized, each participating employee's account to be credited with \$25.00 plus 15¢ for each dollar of such employee and company regular contributions made on his behalf.

On the same date, the directors authorized the cancellation of 235 leases, owing to the fact that it was no longer considered profitable to hold them.

On December 23, 1940 a dividend of \$10 per share was declared out of earnings on the outstanding capital stock, payable forthwith.

On December 26, 1940 participation in the group life plans of Standard Oil Company (New Jersey) adopted by the Hope Company in 1931, 1934, and 1938, were terminated as of December 31, 1940, and a new plan was adopted effective January 1, 1941 in accordance with a contract negotiated by Standard Oil Company (New Jersey) with Equitable Life Assurance Society.

On the same date the effective benefit plan was terminated as of December 31, 1940 and a new disability and death benefit plan was made effective as of January 1, 1941.

The latest stockholders meeting of which the minutes were examined was held on June 11, 1940. The directors elected at that meeting were: L. L. Tonkin, J. C. Chisler, S. E. W. Burnside, C. C. Reed, H. R. Livingston.

On the same date the following officers were elected by the above board of directors:

## Officers:

President and Manager, L. L. Tonkin.

Vice President, J. C. Chisler.

Secretary, S. E. W. Burnside.

Treasurer, J. C. Chisler.

Assistant Secretary, Denton Borger.

Assistant Secretary, John W. Schott.

Assistant Treasurer, H. R. Livingston.

Assistant Treasurer, J. C. Cross.

General Superintendent, C. C. Reed.

Assistant Superintendent, John A. Clark.

The minutes of the directors' meetings to and including February 18, 1941, have been examined and no changes in the above directors and officers have been recorded.

As of December 31, 1940, the authorized capital stock of the company was \$35,000,000, divided into 350,000 shares of common stock having a par value of \$100 per share.

The outstanding capital stock as of the above date was 279,693 shares, having an aggregate par value of \$27,969,300, of which \$11,000,000 was issued in the form of stock dividends.

A summary of the various changes in the authorized and issued capital stock is as follows:

Date	Capital stock authorized	Issued		Total outstanding
		For cash or other assets	Stock dividends	
Sept. 14, 1898	\$300,000	\$200,000		\$200,000
Dec. 16, 1898	500,000	300,000		500,000
March 21, 1908	15,000,000	4,500,000	\$5,000,000	10,000,000
Dec. 31, 1908	15,000,000	25,000		10,025,000
April 10, 1909	15,000,000	75,000		10,100,000
April 22, 1910	15,000,000	600,000		10,700,000
Sept. 6, 1910	15,000,000	1,800,000		12,500,000
March 2, 1911	15,000,000	500,000		13,000,000
Aug. 25, 1911	15,000,000	1,250,000		14,250,000
Dec. 9, 1912	20,000,000			14,250,000
Dec. 30, 1912	20,000,000	2,750,000		17,000,000
27 Jan. 24, 1913	20,000,000	2,000,000		19,000,000
Feb. 28, 1914	20,000,000		\$1,000,000	20,000,000
Aug. 25, 1916	50,000,000			20,000,000
June 26, 1922	35,000,000			20,000,000
Dec. 21, 1922	35,000,000		5,000,000	25,000,000
Mar. 19, 1926	35,000,000	1,600,000		26,600,000
June 11, 1929	35,000,000	* 1,369,300		27,969,300

\* Issued in exchange for property and assets of Clarksburg Light & Heat Company.

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The first dividend declared by the company was 50,000 shares of capital stock of a par value of \$100 per share, or an aggregate sum of \$5,000,000. This was declared at a meeting of the Board of Directors on May 15, 1908, and represented 10 shares of stock for each share presently held. At the same time, Standard Oil Company (New Jersey) purchased 45,000 shares of capital stock for \$4,500,000 in cash, at par.

As a result of this sale of stock and the declaration of the stock dividend, the outstanding capital stock was increased from \$500,000 to \$10,000,000.

Later in the year 1908 (October 21) the first cash dividend of the company was declared in the amount of \$1,000,000 or 10% of the outstanding capital stock.

During each of the calendar years from 1908 to 1940, inclusive, (except the year 1919) cash dividends in substantial amounts were paid. These ranged from \$600,000 paid during the year 1918, which was 3% of the outstanding capital stock as of that date, to

28 \$10,520,000 paid in the year 1920, which was 52.6% of the outstanding capital stock as of December 31 of that year; but was over 75% of the capital stock that had been issued up to that time directly for cash or other assets.

Cash dividends paid during the latest three years of operations, namely 1938, 1939, and 1940 were 10% of the outstanding stock, and during the 33-year period above-mentioned, there were but eight years that the cash dividend rate was less than 10%. These were as follows:

	Percent		Percent
1911-----	9	1919-----	0
1913-----	7	1932-----	5
1914-----	6	1933-----	3
1918-----	3	1937-----	7

The annual average cash dividends from 1908 to 1940, inclusive, was \$2,947,686 which is 12.8% of the annual average outstanding capital stock during that period.

Stock dividends in the aggregate amount of \$11,000,000 have been paid as follows:

1908-----	\$5,000,000
1914-----	1,000,000
1922-----	5,000,000

As of December 31, 1940, Standard Oil Company (New Jersey) owned all of the outstanding capital stock of the company (except qualifying shares).



Schedule No. 1 is a summary by years, from the inception of the company to December 31, 1940, of the invested capital, the net surplus credits and the ratio of the annual net surplus credits to the average annual invested capital.

The amounts shown in column (e) "Average Investment During Year" is the simple average of the sum of the outstanding capital stock and the earned surplus at the beginning and end of each year. The ratio or percent of net surplus credit to the average investment as shown in column (m) is the result of dividing the annual net surplus credits as shown in column (i) by the average invested capital as shown in column (e).

The average annual amount of invested capital over the entire period from 1899 (the first year of operations of the company) to 1940, inclusive, was \$23,198,278. The average annual net earnings plus or minus surplus adjustments amounted to \$2,772,739.77, or 11.95% of the average annual invested capital.

The above stated amounts and percentages are based on unadjusted book figures. The result of the examiners' study of depreciation and depletion expenses, etc., shows a net credit to surplus of \$16,264,918 as of December 31, 1938, as presented in the various reports in connection with the examination of the records. Application of the aggregate amount of these adjustments to the invested capital and to the total earnings of the company results in the following:

30	Average annual capital and surplus.....	\$23,585,537
	Average annual net earnings (including surplus adjustments) .....	3,159,470
	Average rate of earnings to average invested capital...percent..	13.4

<sup>1</sup> Subject to slight adjustment for depreciation, depletion, etc., for 1939 and 1940.

Certain exceptional items appear in Schedule No. 1, particularly in columns (g) and (h), which are surplus credits and debits, respectively. A summary of some of the larger of these items is as follows:

**Surplus credits:**

**Year**

1908—Includes adjustment of depreciation charges in prior years to restore \$1,651,600.82.

1916—Includes enhanced value of leases sold to United Fuel Gas Company in 1910, \$462,332.35.

1921—Includes depreciation restored on property retired in 1920, \$524,880.79 and adjustment of 1920 Federal income tax in the amount of \$106,637.34.

<sup>1</sup> Invested capital as herein used, means the total outstanding capital stock, plus the unappropriated earned surplus.

## Surplus credits:

## Year

1925—Includes adjustment of overaccrued and overpaid Federal income tax and interest in the following amounts: 1924, \$223,884.67; 1909 to 1918, \$168,446.39.

1927—Includes adjustment of Federal income tax for years 1917, 1918, and 1919 (consolidated with Standard Oil Company (New Jersey)), set up in 1923 in the amount of \$1,400,000, reduced to \$400,000.

1929—Adjustment of amortization of leaseholds from January 1, 1921, to October 31, 1929, in the amount of \$545,681.41.

1934—Includes the restoration of depreciation and depletion accruals, years 1927 to 1933, inclusive, in the amount of \$5,901,317.53, and transfer of losses on property retired from surplus to reserves, for the years 1927 to 1933, inclusive, in the amount of \$491,579.45.

## 31 Surplus debits:

## Year

1916—Includes \$210,509.82 closing depreciation and adjustment account, gas investment.

1919—Losses on property abandoned and dismantled, Hastings coal mine, \$127,680.79; Intangibles in Wright Producer construction, \$314,635.93.

1923—Additional taxes accrued, years 1917, 1918, and 1919, \$1,400,000 (\$1,000,000 of this amount was reversed in 1927, see surplus credits).

1926—Includes:

Judgment and interest in favor of Ideal Gasoline Company re gasoline extraction plant, \$227,336.49.

Disposition of Parkersburg warehouse and shop equipment, \$161,393.90.

Amount transferred to reserve for annuities, \$100,000.00.

1930—Setting up supplemental reserve for annuities, \$530,080.00.

1931—Amount transferred to reserve for annuities, \$2,242,234.38.

## Dividends:

## Year

1920—Includes the payment of \$4,520,000 to stockholders, being amount realized from sale of gasoline extraction plants.

1935—Includes distribution of \$88,194.59 in stock of other companies.

Schedule No. 2 is a statement of capital stock outstanding by years from the inception of the company (1898) to 1940, the amount of dividends paid during the same period and the various dividend rates as related to the par value of the outstanding stock.

The annual outstanding stock is separated into two categories, namely, the amount issued in the form of stock dividends and the amount issued for cash or other assets. At December 31, 1940, the former amounted to \$11,000,000 and the latter \$16,969,300, making a total of \$27,969,300.

32 The annual dividends shown in the schedule are also separated into two categories, segregating the stock dividends from those paid in cash.

It will be noted that the total amount of dividends paid during the entire existence of the company was \$108,273,640, of which \$11,000,000 was in the nature of capital stock of Hope Natural Gas Company. The balance of \$97,273,640 was paid in cash (excepting \$88,194.59, which was represented by stocks of other companies).

For purposes of comparison, the dividend rates are shown in the schedule calculated on two bases. Column (b) shows the annual rates of all dividends to the total outstanding stock and column (i) shows the annual rates of cash dividends to the par value of the capital stock that was issued for cash or other assets.

At the foot of Schedule No. 2, annual averages from the inception of the company are shown for: (a) par value of capital stock issued for cash or other assets; (b) annual cash dividends; and (c) annual yield on the average annual outstanding capital stock that was issued for cash or other assets. The average annual yield on this basis is 20.4%.

Further data, not shown in Schedule No. 2, but derived therefrom, are as follows:

33	Average annual total capital stock outstanding.....	\$18,161,467.
	Average annual dividends (all classes).....	2,577,944.
	Average rate of dividends to total capital stock.....	14.19%.

All averages shown in Schedule No. 2 and in the above table are based on the 42-year period from January 1, 1899 (the first year of operations) to December 31, 1940.

Schedule No. 3 is a summary of the Balance Sheet accounts per books, unadjusted as of December 31 of each year from the inception of the company (1898) to 1940.

A separate report has been prepared by the accounting staff on the balance sheet accounts as of December 31, 1938. Further details concerning the balance sheet accounts are shown in that report which is identified as another exhibit in the present proceeding.

Schedule No. 4 is a summary of the income accounts and surplus adjustments per books, unadjusted, from the inception of the company to December 31, 1940. This schedule shows by years the gross revenues, the revenue deductions, the surplus adjustments, dividends paid, and the surplus balance at the end of each year.



Further details relating to the income accounts for the  
 34 years ended December 31, 1937, 1938, and 1939, and the ex-  
 aminers' adjustments as applied thereto are presented in a  
 separate exhibit in this proceeding.

SAMUEL I. NICHOLS,  
 Samuel I. Nichols,

*Senior Examiner of Accounts,*

EDWARD L. DUNN,  
 Edward L. Dunn,

*Examiner in Charge of Field Assignment.*

Washington, D. C., April 25, 1941.

Approved:

W. E. BAKER,

W. E. Baker,

*Chief Accountant.*

CHAS. W. SMITH,

Chas. W. Smith,

*Chief, Bureau of Accounts, Finance and Rates.*

HOPE NATURAL GAS COMPANY

Summary of capital accounts, earnings, dividends paid, and ratio of net surplus credits to average invested capital, years 1898 to 1940, inclusive

Year	Capital accounts (per books) Dec. 31			Average investment during year	Per books			Dividends paid (per books)			Percent net surplus credit to average investment	
	Capital stock	Earned surplus	Total		Net earnings	Surplus adjustments		Cash	Stock	Total		
						Credit	Debit					
												(g)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
1898	\$500,000.00		\$500,000.00	\$250,000	\$15,772.26	\$455.22		\$15,772.26				3.11
1899	500,000.00	815,772.26	1,315,772.26	507,886	64,774.42			64,774.42				11.90
1900	500,000.00	48,546.84	548,546.84	483,453	225,000.12	50.89	\$182.57	224,808.47				39.88
1901	500,000.00	176,321.63	676,321.63	563,887	69,586.08	308,851.89	314,710.08	69,444.87				10.82
1902	500,000.00	106,877.36	606,877.36	641,599	119,455.02	120,218.17	85,686.98	154,486.81				22.58
1903	500,000.00	261,364.17	761,364.17	684,211	78,704.13	6,301.28	256,608.65	171,693.42				23.40
1904	500,000.00	80,760.93	580,760.93	675,563	596,836.85	33,136.15	34,874.00	594,119.00				66.99
1905	500,000.00	683,879.93	1,183,879.93	886,820	1,420,967.98	48,514.94	50,788.47	1,427,694.45				75.23
1906	500,000.00	2,111,571.38	2,611,571.38	1,897,727	1,326,357.90	12,675.48	102,208.58	1,239,424.80				38.29
1907	500,000.00	3,346,399.18	3,846,399.18	3,229,987	1,524,126.64	1,679,043.17	127,784.48	3,075,385.33	\$1,000,000	\$5,000,000	\$6,000,000	43.10
1908	10,000,000.00	423,784.51	10,423,784.51	7,136,062	2,094,472.52	66,453.79	97,928.42	2,092,997.89	1,207,500	1,207,500	1,207,500	18.92
1909	10,100,000.00	1,279,282.40	11,379,282.40	10,501,535	2,001,402.86	378,968.75	105,417.17	2,274,251.44	1,952,000	1,952,000	1,952,000	17.85
1910	12,500,000.00	1,601,533.84	14,101,533.84	12,740,408	2,001,402.86	53,213.02	216,398.01	1,948,508.16	1,247,500	1,247,500	1,247,500	12.71
1911	14,250,000.00	2,302,002.00	16,552,002.00	15,327,008	2,111,063.15	3,186.92	68,086.27	2,557,873.05	4,473,750	4,473,750	4,473,750	15.07
1912	17,000,000.00	386,725.05	17,386,725.05	16,906,664	2,023,372.40				1,330,000	1,330,000	1,330,000	14.04
1913	19,000,000.00	1,733,535.24	20,733,535.24	19,000,130	2,064,816.02	136,046.71	124,053.14	2,276,819.19	1,200,000	1,200,000	2,200,000	12.66
1914	20,800,000.00	2,255,185.98	22,255,185.98	21,494,361	2,746,149.32	44,778.33	69,276.91	2,721,630.74	2,700,000	2,700,000	2,700,000	17.91
1915	20,000,000.00	3,668,528.19	23,668,528.19	22,961,857	4,229,367.92	24,901.52	140,767.23	4,113,342.21	2,700,000	2,700,000	2,700,000	24.55
1916	20,000,000.00	7,214,459.35	27,214,459.35	25,441,404	6,074,270.52	582,386.15	410,925.51	6,245,931.16	2,700,000	2,700,000	2,700,000	24.55
1917	20,000,000.00	10,749,084.57	30,749,084.57	28,981,772	8,825,738.77	77,376.11	68,489.66	8,834,925.22	2,300,000	2,300,000	2,300,000	20.13
1918	20,000,000.00	13,222,149.32	33,222,149.32	31,985,617	3,163,966.67	5,398.88	90,124.80	3,073,664.75	600,000	600,000	600,000	9.61
1919	20,000,000.00	15,209,121.71	35,209,121.71	34,215,636	2,328,167.99	141,564.75	482,760.35	1,986,972.30				5.81

**HOPE NATURAL GAS COMPANY—Continued**  
*Summary of capital accounts, earnings, dividends paid, and ratio of net surplus credits to average invested capital, years 1898 to 1940, inclusive—Continued*

Year	Capital accounts (per book** Dec. 31				Average invest- ment during year	Per books				Dividends paid (per books)			Percent net surplus credit to average invest- ment
	Capital stock		Total	Net earnings		Surplus adjustments		Net surplus credit	Cash	Stock	Total		
	(b)	(c)				Credit	Debit						
												(a)	
1920	20,000,000.00	9,816,427.53	29,816,427.53	5,367,032.02	138,116.31	397,842.51	5,127,305.82	10,520,000		10,520,000	15.77		
1921	20,000,000.00	9,748,128.33	29,748,128.33	29,782,278	1,449,175.64	778,644.52	1,931,700.80	2,000,000		2,000,000	6.49		
1922	25,000,000.00	6,257,146.98	31,257,146.98	30,502,638	3,779,190.42	327,212.90	6,000,018.65	4,500,000	5,000,000	9,500,000	19.70		
1923	25,000,000.00	6,778,497.90	31,778,497.90	6,021,973.39	362,169.56	1,462,792.03	5,321,350.92	5,000,000		5,000,000	17.52		
1924	25,000,000.00	10,351,122.05	35,351,122.05	33,594,810	6,007,801.37	231,802.99	167,070.21	2,500,000		2,500,000	18.00		
1925	25,000,000.00	12,364,434.70	37,364,434.70	4,234,451.36	438,590.26	397,728.97	4,862,312.65	2,500,000		2,500,000	12.40		
1926	26,000,000.00	10,330,302.85	37,930,302.85	37,145,369	5,158,443.78	82,032.26	20,627.83	6,650,000		6,650,000	12.44		
1927	26,000,000.00	10,911,216.31	36,900,216.31	36,705,780	2,614,964.68	1,238,434.26	3,660,913.46	3,900,000		3,900,000	9.96		
1928	26,000,000.00	9,042,882.79	35,042,882.79	36,122,050	3,436,317.21	493,298.34	3,031,695.48	3,960,000		3,960,000	8.39		
1929	27,000,000.00	9,417,250.18	37,396,500.18	36,514,716	4,220,532.01	698,124.87	455,824.49	4,532,832.30		4,058,465	12.14		
1930	27,000,000.00	6,752,230.98	34,721,530.98	36,054,041	2,296,735.47	764,574.16	1,530,375.80	4,195,365		4,195,365	4.24		
1931	27,000,000.00	1,820,633.25	29,789,933.25	32,255,732	1,646,081.98	69,496.42	2,452,361.13	4,195,365		4,195,365	2.48		
1932	27,000,000.00	196,288.56	28,165,568.56	28,977,761	40,513.22	143,210.26	406,032.17	1,398,465		1,398,465	.78		
1933	27,000,000.00	552,027.55	28,521,327.55	28,343,458	1,191,070.15	30,545.89	1,194,817.99	839,079		839,079	4.22		
1934	27,000,000.00	8,000,916.88	34,030,216.88	31,275,772	1,945,641.38	6,553,939.47	8,305,819.33	2,796,930		2,796,930	20.56		
1935	27,000,000.00	4,419,169.30	32,388,469.30	33,209,343	2,747,324.48	36,638.03	2,641,842.01	4,283,560		4,283,560	7.90		
1936	27,000,000.00	5,688,519.21	33,657,819.21	33,022,144	4,063,950.07	2,329.84	4,066,279.91	2,796,930		2,796,930	12.31		
1937	27,000,000.00	6,554,696.81	34,562,506.81	34,000,908	2,803,431.94	23,038.10	2,824,028.60	1,957,851		1,957,851	8.28		
1938	27,000,000.00	5,194,107.77	35,163,407.77	33,843,702	1,396,655.49	37,685.47	1,436,340.96	2,796,930		2,796,930	4.24		
1939	27,000,000.00	5,253,480.76	33,222,789.76	33,193,090	2,528,983.64	357,441.21	2,846,311.96	2,796,930		2,796,930	8.61		
1940	27,000,000.00	8,159,170.86	36,126,470.86	34,675,630	45,612.11	30,112.86	5,702,611.10	2,796,930		2,796,930	16.45		
Annual average			23,198,278				2,772,210				11.95		

*Italic figures denote deficit.*

*NOTE.—See text of report for special comment on certain items in columns (g), (h), and (i).*

## HOPE NATURAL GAS COMPANY

*Capital stock outstanding, dividends paid, and annual dividend rates, by years, from 1898 to 1940, inclusive*

Year	Capital stock outstanding (per books)			Dividends (per books)			Dividend rates	
	Total Dec. 31	Issued as stock dividends	Issued for cash or other assets	Total	Stock	Cash	Total dividends to total stock	Cash dividends to stock issued for cash or other assets
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
1898	\$500,000		\$500,000				%	%
1899	500,000		500,000					
1900	500,000		500,000					
1901	500,000		500,000					
1902	500,000		500,000					
1903	500,000		500,000					
1904	500,000		500,000					
1905	500,000		500,000					
1906	500,000		500,000					
1907	500,000		500,000					
1908	10,000,000	\$5,000,000	5,000,000	\$6,000,000	5,000,000	\$1,000,000	60	20
1909	10,100,000	5,000,000	5,100,000	1,207,500		1,207,500	12	23.7
1910	12,500,000	5,000,000	7,500,000	1,952,000		1,952,000	15.5	26
1911	14,250,000	5,000,000	9,250,000	1,247,500		1,247,500	8.8	13.5
1912	17,000,000	5,000,000	12,000,000	4,473,750		4,473,750	26	37.3
1913	19,000,000	5,000,000	14,000,000	1,330,000		1,330,000	7	9.5
1914	20,000,000	6,000,000	14,000,000	2,200,000	1,000,000	1,200,000	11	8.6
1915	20,000,000	6,000,000	14,000,000	2,700,000		2,700,000	13.5	19.3
1916	20,000,000	6,000,000	14,000,000	2,700,000		2,700,000	13.5	19.3
1917	20,000,000	6,000,000	14,000,000	2,300,000		2,300,000	11.5	16.4
1918	20,000,000	6,000,000	14,000,000	600,000		600,000	3	4.3
1919	20,000,000	6,000,000	14,000,000					
1920	20,000,000	6,000,000	14,000,000	10,520,000		10,520,000	52.6	75.1
1921	20,000,000	6,000,000	14,000,000	2,000,000		2,000,000	10	14.3
1922	25,000,000	11,000,000	14,000,000	9,500,000	5,000,000	4,500,000	38	32.1
1923	25,000,000	11,000,000	14,000,000	5,000,000		5,000,000	20	35.7
1924	25,000,000	11,000,000	14,000,000	2,500,000		2,500,000	10	17.9
1925	25,000,000	11,000,000	14,000,000	2,500,000		2,500,000	10	17.9
1926	26,600,000	11,000,000	15,600,000	6,650,000		6,650,000	25	42.6
1927	26,600,000	11,000,000	15,600,000	3,990,000		3,990,000	15	25.6
1928	26,600,000	11,000,000	15,600,000	3,990,000		3,990,000	15	25.6
1929	27,969,300	11,000,000	16,969,300	4,058,465		4,058,465	15	23.9
1930	27,969,300	11,000,000	16,969,300	4,195,395		4,195,395	15	24.7
1931	27,969,300	11,000,000	16,969,300	4,195,395		4,195,395	15	24.7
1932	27,969,300	11,000,000	16,969,300	1,398,465		1,398,465	5	8.2
1933	27,969,300	11,000,000	16,969,300	839,079		839,079	5	4.9
1934	27,969,300	11,000,000	16,969,300	2,796,930		2,796,930	10	16.5
1935	27,969,300	11,000,000	16,969,300	4,283,500		4,283,500	15	25.2
1936	27,969,300	11,000,000	16,969,300	2,796,930		2,796,930	10	16.5
1937	27,969,300	11,000,000	16,969,300	1,957,851		1,957,851	7	11.5
1938	27,969,300	11,000,000	16,969,300	2,796,930		2,796,930	10	16.5
1939	27,969,300	11,000,000	16,969,300	2,796,930		2,796,930	10	16.5
1940	27,469,300	11,000,000	16,469,300	2,796,930		2,796,930	10	16.5
Total				108,273,649	11,000,000	97,273,649		

Includes \$4,520,000 cash dividend paid from proceeds of sale of gasoline and butane properties.

Includes \$88,194.59 dividend in stock of other companies.

Average annual stock outstanding, issued for cash or other assets (from inception of company)

\$11,328,133

Average annual cash dividends (from inception of company), \$2,316,000

Average annual yield on average annual amount of capital stock issued for cash or other assets,

20.4%

## HOPE NATURAL GAS COMPANY

Comparative condensed balance sheets, per books Dec. 31, 1898, to Dec. 31, 1940, inclusive

Dec. 31	Assets and other debits					Liabilities and other credits					Total
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	
	Fixed assets	Investments and fund accounts	Current and accrued assets 1	Deferred debits	Total	Capital stock	Long term advances, etc. 2	Current and accrued liabilities	Depreciation and depletion reserves	Deferred credits and other reserves 2	Surplus
1898	\$186,263.67		\$316,537.82	\$283.24	\$503,084.73	\$500,000.00		\$3,014.60		\$70.67	\$503,084.73
1899	516,112.36		27,963.73		544,076.09	500,000.00		28,243.83			\$15,772.26
1900	584,083.63		37,442.92		621,526.54	500,000.00		98,759.55	\$71,313.83		48,546.84
1901	508,718.00		160,979.52		759,698.12	500,000.00		12,062.66	71,313.83		176,321.03
1902	3,342,108.75		216,000.27		3,558,259.02	500,000.00	\$2,710,721.31	109,636.67	130,723.68		106,877.96
1903	5,436,363.68		620,088.33		6,056,452.21	500,000.00	5,094,318.68	75,636.44	153,332.92		261,364.17
1904	7,296,295.47		392,884.78		7,659,180.25	500,000.00	6,265,018.31	119,847.71	684,533.30		89,760.93
1905	7,596,638.25		529,369.99		8,126,028.22	500,000.00	5,753,202.60	105,424.22	1,083,521.47		683,879.93
1906	8,040,300.14		690,902.77		8,751,202.88	500,000.00	3,953,408.65	180,116.33	2,063,103.52		2,111,574.38
1907	10,049,066.99		558,767.02		10,607,834.01	500,000.00	3,564,171.84	402,826.44	2,792,433.55		3,348,399.18
1908	10,833,232.51		952,530.01		11,785,762.52	10,000,000.00		221,145.28	1,140,832.73		423,784.51
1909	12,508,955.99		1,034,630.09		13,543,586.08	10,000,000.00		1,023,466.95	1,400,832.73		1,279,282.40
1910	16,044,381.03		1,707,982.61		18,352,363.64	12,500,000.00		1,850,517.02	2,400,012.78		1,601,533.84
1911	18,128,652.37		1,352,511.99		19,482,164.36	14,250,000.00		329,549.38	2,400,012.78		2,392,002.00
1912	19,928,871.29		1,399,722.26		21,328,593.55	17,000,000.00		701,407.63	3,240,000.87		396,725.03
1913	21,919,941.16	2,016,010.00	2,438,028.80		26,374,979.96	19,000,000.00		1,473,539.63	4,167,005.89		1,733,535.24
1914	23,118,720.54	3,141,010.00	2,570,100.87		28,829,831.41	20,000,000.00		1,398,125.54	5,176,519.09		2,553,185.98
1915	24,476,242.37	3,141,010.00	3,198,407.29		30,815,659.66	20,000,000.00		883,081.85	6,293,449.62		3,668,528.19
1916	26,355,051.69	3,141,010.00	3,754,278.40		33,250,339.49	20,000,000.00		1,577,649.82	7,438,230.32		7,214,459.35
1917	34,753,834.30	3,141,010.00	3,531,125.25		41,425,969.45	20,000,000.00		1,882,787.38	8,794,097.50		10,749,084.37
1918	37,840,597.85	3,141,010.00	5,628,232.11		46,579,783.20	20,000,000.00		2,998,977.07	10,358,056.81		13,222,140.32
1919	37,840,597.85	3,141,010.00	7,848,811.82		48,839,419.67	20,000,000.00		2,162,109.02	11,990,876.39		15,209,121.57
1920	32,410,554.34	3,141,040.00	9,004,931.30		44,556,495.64	20,000,000.00		2,162,109.02	12,577,959.09		9,816,427.53
1921	33,308,323.09	3,141,010.00	9,028,249.30		45,477,592.39	20,000,000.00		2,005,422.84	13,089,104.15	34,927.07	9,748,128.33



## HOPE NATURAL GAS COMPANY

Comparative income account and surplus per company's statements (see note), years 1898 to 1939, inclusive

Year	Operating revenues			Operating expenses					Net operating income	Other income	Income deductions	Net income (to surplus)	Surplus			Balance Dec. 31
	Gas sales	Other operating revenues (net)	Total	Operation and maintenance	Gas purchased	Taxes	Depreciation	Total					Other additions	Dividends paid	Other deductions	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
1898																
1899	\$19,048.20		\$19,048.20	\$2,514.83		\$1,158.72		\$3,673.55	\$15,374.65	\$397.61		\$15,772.26				\$15,772.26
1900	129,446.17		129,446.17	42,704.65		1,047.85	\$151,036.75	194,789.25	65,347.08	568.76		64,774.32	\$455.22			49,446.81
1901	296,480.29		296,480.29	59,423.48		1,345.36	11,898.06	72,666.90	223,813.39	1,180.76		225,000.15	50.80		\$182.57	176,321.63
1902	606,697.87		606,697.87	274,261.84		4,956.25	476,466.17	755,684.26	68,986.39	1,880.30		67,588.08	308,851.80			108,877.36
1903	1,222,962.67	\$648.81	1,223,611.48	451,363.99		8,235.00	579,132.44	1,038,731.52	184,879.96	1,473.11	66,897.45	119,455.62	120,718.17			85,686.98
1904	2,000,530.98	1,585.28	2,002,116.26	597,061.52		15,189.33	1,228,914.53	1,841,165.38	180,930.88	2,213.54	84,480.29	78,704.13	6,301.28			256,606.65
1905	2,204,016.24	12,982.08	2,306,998.32	769,832.24		14,408.39	974,247.71	1,788,488.84	518,509.48		182,170.72	104,832.35	595,856.85			33,136.15
1906	3,465,611.33	5,012.52	3,470,623.85	716,778.78	\$10,800.39	40,902.88	1,327,819.93	2,096,301.98	1,374,321.87	173,851.91	118,205.80	1,429,967.98	48,514.94			84,874.00
1907	3,948,867.20	999.48	3,949,866.68	1,235,313.85	95,477.88	82,878.00	1,316,869.73	2,730,529.15	1,217,828.57	188,284.62	79,755.29	1,326,357.90	12,675.48			102,208.58
1908	3,521,172.72	13,572.49	3,534,745.21	1,603,124.81	40,553.34	93,029.79	420,093.54	2,165,801.48	1,368,943.73		70,087.40	1,524,126.64	1,679,043.17	\$6,000,000.00		423,784.51
1909	5,075,440.12	39,856.14	5,114,996.26	1,979,165.49	292,510.84	88,939.09	808,036.91	3,258,652.33	1,856,343.93	246,880.87	8,752.28	2,094,472.52	66,453.79	1,207,500.00		1,279,262.40
1910	7,007,988.61	27,312.18	7,035,300.79	2,360,766.74	960,914.21	154,404.72	1,808,257.68	5,284,343.35	1,750,957.44	303,382.15	53,236.73	2,001,102.86	378,965.75	1,982,000.00		1,601,533.84
1911	7,540,482.90	23,852.80	7,564,335.70	2,838,035.26	1,291,514.71	162,818.39	1,406,274.85	5,698,643.21	1,865,692.49		287,221.36	2,111,693.15	53,213.02	1,947,500.00		2,302,602.00
1912	8,509,058.29	70,428.79	8,609,487.08	2,771,857.99	1,213,487.32	159,590.46	2,213,383.59	6,358,328.36	2,311,158.72	319,351.12	7,137.44	2,623,372.40	3,196.92	4,473,500.00		3,668,528.19
1913	8,803,953.24	284,659.91	9,088,613.15	2,852,842.65	1,173,712.35	211,690.58	2,512,590.95	6,790,716.53	2,327,878.62	349,094.80	12,156.80	2,664,816.62	136,046.71	1,330,000.00		1,733,535.24
1914	8,986,733.54	278,508.76	9,265,242.30	3,202,281.26	1,074,805.68	238,906.03	2,707,214.21	7,223,247.18	2,041,996.12	733,447.13	29,292.93	2,764,149.32	44,778.33	2,300,000.00		2,255,185.98
1915	9,334,799.61	430,616.56	9,765,416.17	2,898,736.31	973,528.58	271,427.25	2,085,763.61	6,229,455.75	3,535,990.42	694,415.73	1,168.23	4,229,207.92	24,901.52	2,700,000.00		3,668,528.19
1916	12,785,685.84	972,484.13	13,758,169.97	2,958,674.16	1,351,040.57	358,337.86	2,868,405.89	8,536,458.18	5,221,611.49	853,746.88	1,087.85	6,074,270.52	582,586.15	2,700,000.00		7,214,450.35
1917	14,240,375.31	1,528,297.33	15,768,672.64	4,856,611.71	2,179,748.54	578,787.20	3,248,887.74	10,864,035.19	4,904,637.45	927,340.19	6,238.87	5,825,738.77	77,376.11	2,300,000.00		10,749,084.57
1918	13,991,309.36	1,637,915.19	15,629,224.55	6,329,307.25	2,365,929.70	1,632,851.71	3,269,948.16	13,538,036.82	2,091,487.73	1,088,710.97	15,992.03	3,163,906.67	5,308.88	609,900.00		13,222,149.32
1919	12,670,007.38	2,408,463.22	15,078,470.60	7,054,748.82	1,939,975.43	788,440.23	3,421,067.10	13,854,251.58	1,224,219.02	1,121,844.47	17,895.50	2,328,167.90	141,564.75			15,209,121.71
1920	17,034,889.50	697,290.54	17,732,180.04	8,086,458.74	1,906,080.51	821,338.99	2,831,977.29	13,735,855.53	3,906,324.51	1,400,079.01	9,371.50	5,387,032.02	138,118.31	10,520,000.00		9,816,427.43
1921	12,772,401.07	469,850.28	13,242,251.35	6,381,991.33	2,370,100.76	719,831.10	2,925,958.11	12,397,881.30	844,370.05	953,408.92	348,603.33	1,449,175.64	778,844.52	2,000,000.00		208,119.36
1922	15,795,956.11	395,436.35	16,191,392.46	4,914,549.48	2,851,246.18	1,215,097.12	2,429,428.46	11,410,321.24	4,780,877.22	1,226,382.24	228,063.04	5,779,190.42	327,212.90	9,500,000.00		6,257,146.98
1923	17,778,070.32	350,375.44	18,128,445.76	4,504,106.95	4,232,061.87	1,286,893.06	2,741,238.58	12,764,300.46	5,364,145.30	1,437,127.13	179,299.04	6,621,973.39	362,169.56	5,900,000.00		6,778,497.90
1924	18,006,316.00	186,834.13	18,193,150.13	4,813,726.04	4,925,066.42	1,389,327.53	2,766,340.45	13,894,499.44	4,298,689.69	1,921,223.80	212,021.92	6,007,891.37	231,802.99	2,500,000.00		167,070.21
1925	17,918,723.42	225,026.99	18,143,750.41	5,027,623.09	5,885,012.76	1,176,754.22	2,966,454.01	15,055,844.08	3,087,906.03	1,411,729.99	265,184.66	4,234,451.36	438,560.26	2,500,000.00		163,728.97
1926	20,661,752.15	223,044.53	20,884,796.68	5,512,959.82	7,545,636.19	1,475,341.89	2,872,050.71	17,405,988.61	3,478,808.07	1,870,316.02	190,680.31	5,158,445.78	82,052.20	6,650,000.00		620,627.83
1927	19,363,078.52	163,344.80	19,526,423.32	5,735,411.03	8,322,860.41	1,124,259.58	2,808,947.09	17,991,478.11	1,534,945.21	1,234,074.09	154,054.62	2,614,064.68	1,238,434.26	3,990,000.00		192,485.48
1928	20,634,648.98	187,994.77	20,822,643.75	5,383,293.15	9,005,892.08	1,399,133.88	2,651,035.67	18,429,354.78	2,393,288.97	1,313,225.67	270,197.43	3,436,317.21	88,557.61	3,990,000.00		493,208.34
1929	22,047,733.47	213,502.19	22,261,235.66	5,337,145.57	9,500,697.72	4,529,822.43	2,659,836.50	19,027,502.22	3,233,733.44	1,155,726.25	168,927.68	4,230,532.01	668,124.87	4,058,465.00		455,824.19
1930	19,930,672.16	196,435.01	20,127,107.17	5,371,925.17	9,530,549.16	1,359,427.97	2,677,473.73	18,939,376.03	1,187,731.14	1,295,633.73	216,629.40	2,266,735.47	28,214.49	4,195,395.00		6,752,230.06
1931	17,993,136.79	134,353.97	18,127,490.76	4,546,909.27	9,016,616.53	1,304,322.03	2,560,452.74	17,428,300.57	699,190.19	1,161,925.16	214,433.37	1,646,681.96	69,496.42	4,195,395.00		1,820,683.25
1932	14,205,835.17	96,494.66	14,302,319.83	4,053,351.39	7,671,490.06	1,053,994.07	2,328,628.15	15,107,463.67	805,147.84	989,683.56	144,026.50	40,518.22	143,210.26	1,368,465.00		1,288,566.58
1933	14,120,615.78	99,229.82	14,219,845.60	3,721,119.07	7,054,827.25	1,100,327.67	1,997,514.46	13,853,788.45	306,057.15	910,588.51	85,575.51	1,191,370.15	30,545.89	3,990,000.00		552,027.58
1934	15,998,395.42	157,863.20	16,144,258.62	3,784,982.84	8,449,290.98	1,176,455.81	1,692,887.55	15,103,617.18	1,040,641.44	1,055,084.36	150,064.42	1,945,641.38	6,553,599.47	2,796,930.00		6,080,918.86
1935	16,976,038.37	182,082.97	17,158,121.34	4,150,656.24	7,549,315.86	1,332,609.46	1,845,975.57	14,878,647.13	2,270,474.21	656,034.27	198,184.00	2,737,324.48	36,638.03	4,283,599.59		4,419,169.39
1936	20,138,712.17	184,395.28	20,323,107.45	5,064,156.90	8,053,140.64	1,638,428.97	2,012,676.75	16,768,403.26	3,554,704.19	591,792.42	82,546.54	4,063,950.07	2,329.84	2,796,930.00		5,686,519.21
1937	20,366,473.19	452,070.37	20,818,543.56	5,594,329.46	8,291,272.53	1,583,124.94	1,982,009.69	18,450,736.62	2,367,806.94	455,358.30	19,733.30	2,803,431.94	23,038.10	1,957,851.00		6,564,696.81
1938	16,941,830.32	363,888.96	17,305,719.18	5,455,422.16	8,169,545.71	1,145,422.31	1,663,115.04	16,433,845.25	872,213.93	548,071.82	21,630.26	1,398,655.49	37,685.47	2,796,930.00		5,194,107.77
1939	18,118,709.89	337,079.18	18,455,789.07	5,770,435.49	7,746,853.78	1,436,731.75	1,218,400.00	16,172,421.02	2,283,368.05	258,455.74	12,840.15	2,528,983.64	1,357,441.21	2,796,930.00		5,253,489.78
1940	24,362,454.07	329,122.23	24,691,576.30	6,793,507.64	8,629,481.02	2,464,514.26	1,463,585.94	19,351,088.36	5,337,487.44	317,427.66	2,083.89	5,656,966.99	56,673.25	2,796,930.00		8,150,170.96
Total	507,784,792.74	13,378,291.98	521,163,084.72	157,459,468.46	162,681,037.99	32,672,553.72	82,081,475.73	434,894,535.90	86,268,548.82	29,896,090.82	3,894,901.08	112,229,738.56	15,417,047.03	108,273,639.59	11,223,975.14	8,150,170.96

NOTE.—This schedule was prepared from the company's financial statements with minor reclassifications necessary for uniformity.

Includes \$327,428.71 surplus of Reserve Gas Company taken over in merger as of December 30, 1939.

Italic figures denote deficit.

1922	32,934,915.66	3,128,775.50	12,587,065.75	48,650,756.91	25,000,000.00	48,650,756.91	52,927.07	6,257,146.98	48,650,756.91
1923	35,091,286.37	4,180,593.48	14,810,031.16	53,090,911.01	25,000,000.00	53,090,911.01	30,927.07	6,778,497.90	53,090,911.01
1924	37,456,788.34	3,168,419.75	18,210,673.83	59,235,881.92	25,000,000.00	59,235,881.92	39,927.07	10,351,122.65	59,235,881.92
1925	43,971,823.89	3,169,417.52	16,446,173.04	63,584,444.44	25,000,000.00	63,584,444.44	4,269,811.06	21,659,198.98	75,000.00
1926	47,163,989.87	3,152,311.67	16,024,123.04	66,340,424.85	26,000,000.00	66,340,424.85	175,000.00	10,330,302.85	66,340,424.85
1927	48,762,083.87	3,067,351.59	15,427,832.56	67,251,318.02	26,000,000.00	67,251,318.02	246,000.00	10,001,216.31	67,251,318.02
1928	48,547,517.85	3,029,559.55	17,129,598.08	68,706,675.48	26,000,000.00	68,706,675.48	318,460.80	9,042,882.79	68,706,675.48
1929	52,192,633.05	2,530,983.30	18,754,365.08	73,477,581.43	27,969,300.00	73,477,581.43	3,644,290.84	31,898,879.61	577,860.80
1930	53,009,419.06	2,529,534.39	18,164,965.11	73,703,918.56	27,969,300.00	73,703,918.56	1,172,140.64	6,752,230.98	73,703,918.56
1931	52,779,248.43	2,529,534.31	17,243,441.78	72,552,224.52	27,969,300.00	72,552,224.52	2,967,286.11	36,351,575.12	3,438,430.04
1932	52,412,213.97	2,529,534.23	13,361,704.66	68,303,482.86	27,969,300.00	68,303,482.86	1,752,439.09	38,368,467.63	16,987.58
1933	52,100,644.72	2,671,456.36	15,869,213.52	10,177,507.71	492,102.27	969,300.00	2,074,598.47	40,152,837.78	31,728.30
1934	54,453,648.35	2,638,844.36	15,995,207.84	13,826,437.73	101,426.98	27,969,300.00	2,835,353.08	35,142,262.90	47,594.13
1935	54,312,172.68	2,370,390.38	15,536,720.65	12,016,857.72	231,360.56	27,969,300.00	2,802,112.20	36,703,400.64	53,318.42
1936	56,106,042.67	1,974,094.66	16,951,931.43	6,547,237.55	249,215.99	27,969,300.00	3,052,318.48	38,252,028.30	65,050.00
1937	56,536,085.25	1,983,629.54	18,215,284.15	2,046,637.96	739,043.57	27,969,300.00	2,454,490.18	39,693,097.14	57,461.44
1938	56,049,798.58	3,796,362.25	15,490,687.85	3,002,287.91	850,962.27	969,300.00	1,971,351.32	40,714,018.58	63,073.29
1939	64,250,654.67	247,698.60	17,379,109.92	190,371.45	82,037,714.64	27,969,300.00	2,700,722.62	46,011,154.81	73,077.45
1940	65,193,286.63	244,048.98	21,117,079.86	58,233.77	86,613,249.24	27,969,300.00	3,739,671.51	46,654,680.71	90,416.16

<sup>1</sup> Prior to 1934, certain reserves, such as uncollectible accounts, etc., are netted against the corresponding asset account.

<sup>2</sup> Long term advances, etc., 1942 to 1967, inclusive, represent advances from associated company, liquidated by issuance of capital stock; 1934 to 1936, inclusive, represent notes issued for purchase of property, etc.

*Italic figures denote deficit*

1 **EXHIBIT NO. 40.—STIPULATION THAT HOPE NATURAL  
GAS COMPANY IS A NATURAL GAS COMPANY UNDER  
THE NATURAL GAS ACT**

**STIPULATION**

It is stipulated by counsel for the Hope Natural Gas Company and counsel for the Federal Power Commission that the Hope Natural Gas Company is a natural-gas company within the meaning of section 2 (6) of the Natural Gas Act, which provides: "Natural-gas company" means a person engaged in the transportation of natural gas in interstate commerce, or the sale in interstate commerce of such gas for resale."

/s/ **WILLIAM B. COCKLEY,**  
*Counsel for Hope Natural Gas Company.*

/s/ **RICHARD J. CONNOR,**

/s/ **MILFORD SPRINGER,**  
*Counsel for Federal Power Commission.*

**Date: March 3, 1941.**

**Approved:**

/s/ **SPENCER W. REEDER,**  
*Counsel for Cleveland.*

/s/ **SAMUEL G. MILLER,**  
*Counsel for Pennsylvania Public Utility Commission.*



10 **EXHIBIT NO. 11.—BALANCE SHEET, INCOME ACCOUNT,  
ANALYSIS OF PROFIT AND LOSS—SURPLUS, YEAR  
ENDED DEC. 31, 1938, COMPARATIVE FOR YEARS 1929  
TO 1938, INCLUSIVE, HOPE WITNESS CHISLER**

[Pages 1 to 9 omitted]

**HOPE NATURAL GAS COMPANY**

*Balance sheet per company's books as of Dec. 31, 1938*

W. Va.  
P. S. C.  
Account  
No.

**ASSETS AND OTHER DEBITS**

<b>101 Fixed capital:</b>		
Production system property.....	\$26,072,494.77	
Transmission system property.....	25,253,484.00	
Distribution system property.....	2,795,083.04	
General property.....	1,980,813.68	
Unfinished construction.....	81,392.75	
Undistributed intangible fixed capital:		
Franchises.....	5,811.64	
Patent rights and licenses.....	458.66	
Contracts for gas.....	23,915.61	
<b>Total fixed capital.....</b>	<b>56,213,454.15</b>	
<b>102 Investments in other physical property:</b>		
Coal property.....	341,529.68	
Property appreciation account (C. L. & H. Co.).....	94,814.75	
Surplus property available for sale.....	132,624.97	
<b>Total investments in other physical property.....</b>	<b>568,969.40</b>	
<b>111 Cash:</b>		
Cash in banks and on hand.....	534,588.16	
Disbursing agents and returned checks.....	9,226.52	
<b>Total cash.....</b>	<b>543,814.68</b>	
<b>112 Notes receivable:</b>		
Customers and others.....	5,711.68	
Officers and employees.....	788.37	
<b>Total notes receivable.....</b>	<b>6,500.05</b>	

*Balance sheet per company's books as of Dec. 31, 1938—Continued*

W. Va.  
P. S. C.  
Account  
No.

## ASSETS AND OTHER DEBITS—continued

113	Accounts receivable:		
	Gas, shop, and store ledgers.....	\$259,977.64	
	Special gas sales contract accounts.....	129,298.31	
	Loans to affiliated companies.....	521,983.45	
	Current affiliated company accounts.....	1,355,084.66	
	Other.....	64,304.26	
	Total accounts receivable.....	2,330,648.32	
114	Interest and dividends receivable:		
	Government securities.....	40,883.05	
	Notes.....	28.35	
	Total interest and dividends receivable.....	40,911.40	
115	Marketable securities:		
	Government bonds.....	11,033,593.76	
116	Materials and supplies:		
	Warehouse accounts.....	1,400,452.32	
	Store and shop merchandise.....	16,911.13	
	Material loaned and repairing account.....	13.00	
	Total materials and supplies.....	1,417,376.45	
117	Prepayments:		
	Taxes.....	12,700.00	
	Licenses.....	1,905.59	
	Insurances.....	12,880.50	
	Rentals and royalties (other than oil or gas).....	1,380.60	
	Total prepayments.....	28,866.87	
121	Investments in affiliated companies:		
	Reserve Gas Company.....	3,547,442.50	
	Gas Companies, Inc.....	5,000.00	
	Total investments in affiliated companies.....	3,552,442.50	
122	Miscellaneous investments:		
	Citizens Telephone Company.....	10.00	
	The Union National Bank, Clarksburg, W. Va.....	2,400.00	
	Total miscellaneous investments.....	2,410.00	
125	Miscellaneous special funds:		
	Government securities accepted as security by Workmen's Compensation Commission of West Virginia.....	75,900.94	
	Advance premiums paid to Workmen's Compensation Commission of West Virginia.....	276.51	
	Total miscellaneous special funds.....	76,237.45	

## Balance sheet per company's books as of Dec. 31, 1938—Continued

W. Va.  
P. S. C.  
Account  
No.

## ASSETS AND OTHER DEBITS—continued

135	Work in progress:	
	Incomplete jobs.....	\$871.48
	Public road suspense account.....	257.59
	Store suspense account.....	583.94
	Well suspense account.....	143.20
	Mannington district office suspense account.....	38.55
	Total work in progress.....	1,894.76
136	Miscellaneous suspense:	
	State unemployment compensation tax.....	2,248.01
	Other prepaid and deferred charges.....	1,041.26
	Total miscellaneous suspense.....	3,289.27
	Total assets and other debits.....	75,820,409.06

## LIABILITIES AND OTHER CREDITS

201	Capital stock:	
	Authorized—\$35,000,000 divided into 350,000 shares, \$100 par value.	
	Issued and outstanding—279,693 shares.....	\$27,969,300.00
222	Accounts payable:	
	Vouchers.....	100,426.99
	Rentals.....	71,693.65
	Pay rolls.....	176,448.26
	Gas purchased.....	791,385.99
	Accident benefits.....	80,170.35
	Intercompany accounts payable.....	26,654.54
	Other.....	36,449.48
	Total accounts payable.....	1,283,229.26
223	Customer's deposits:	
	Security deposits.....	89,005.00
	Drillers and pumpers.....	1,646.03
	Unclaimed.....	228.73
	Total customer's deposits.....	90,879.76
227	Miscellaneous current liabilities:	
	Unpaid gas royalty account.....	14.72
231	Taxes accrued:	
	Federal income.....	10,000.00
	Other.....	479,286.38
	Total taxes accrued.....	489,286.38
232	Interest accrued:	
	Security deposits.....	4,691.53
233	Miscellaneous accrued liabilities:	
	Accrued rentals payable.....	330.79
	Accrued royalties payable.....	11,476.98
	Total miscellaneous accrued liabilities.....	11,807.77

*Balance sheet per company's books as of Dec. 31, 1938—Continued*

W. Va.  
P. S. C.  
Account  
No.

## LIABILITIES AND OTHER CREDITS—continued

<b>251</b>	Retirement and depletion reserve:	
	Production system property	\$19,451,498.20
	Transmission system property	18,517,649.71
	Distribution system property	1,306,166.86
	General property	1,354,432.54
	Contracts for gas	813.44
	Cost of abandoning property	3,001.58
	Total retirement and depletion reserve	40,633,562.33
<b>255</b>	Contributions for extensions:	
	Contributions in aid of construction	540.87
<b>257</b>	Miscellaneous reserves:	
	Property appreciation (C. L. & H. Co.)	45,431.90
	Surplus property available for sale	80,456.25
	Doubtful accounts receivable	10,600.00
	Doubtful notes receivable	100.00
	Accounts in closed banks	3,232.63
	Total miscellaneous reserves	139,820.78
<b>261</b>	Miscellaneous unadjusted credits:	
	Store earning suspense account	3,117.89
	Deposit by consumer for line extension	50.00
	Total miscellaneous unadjusted credits	3,167.89
<b>270</b>	Profit and loss—surplus	5,194,107.77
	Total liabilities and other credits	75,820,409.06

[Pages 11 to 21 omitted.]

1     **EXHIBIT NO. 57.—ORIGINAL COST OF GAS PLANT AS AT  
DEC. 31, 1938, VOLUME I, F. P. C. WITNESSES SMITH,  
BAKER, DUNN, AND PACE**

**WRITTEN STATEMENT**

The Federal Power Commission, under date of October 14, 1938, issued an order of investigation into and concerning all rates, charges, classifications, rules, regulations, practices, or contracts of Hope Natural Gas Company. In accordance therewith, an examination of the accounts and records of Hope Natural Gas Company has been made, and, as a result, this report on the original cost of the Gas Plant of the Company is submitted.

This report is in two parts. Volume I sets forth the investment of Hope Natural Gas Company in Gas Plant per Company books and as adjusted, as of December 31, 1938. The adjusted figures show the original cost as defined in the Federal Power Commission's Uniform System of Accounts for Natural Gas Companies of the gas plant. Volume II contains a detailed explanation of the staff adjustments.

On January 1, 1939, there became effective and applicable to the Company a new Uniform System of Accounts for Gas Utilities prescribed by the Public Service Commission of West Virginia. In July 1938 the Company began an investigation and study of its records for the purpose of stating in its Gas Plant Accounts the cost of its properties and to reflect the amount of such cost in each primary account as prescribed by said Commission.

2     The results of this investigation and study made by the Company, were made available to the accountants of the Federal Power Commission during May 1940. An inventory of the existing property at December 31, 1938, was made by the Company and priced at what the Company claims was original cost. The results of this inventory, among other things, necessitated numerous reclassifications of costs, adjustment of prior distribution of certain costs and correction of certain accounting errors, all of which have been examined by the Commission's staff of accountants.

There is presented immediately hereinafter a condensed balance sheet of the Company as reflected by the books of account at December 31, 1938, before any adjustments, in order to set forth the capitalized cost of Gas Plant per books on that date:

3

## ASSETS

Gas plant:	Amount
Gas plant in service.....	\$56,101,875.49
Construction work in progress.....	81,392.75
Gas plant adjustment.....	94,814.75
Coal property.....	341,529.68
Franchises, patent rights, and other intangibles.....	30,185.91
Total gas plant.....	\$56,649,798.58
Investment and fund accounts.....	3,796,362.25
Current and accrued assets.....	15,460,687.85
Deferred debits.....	5,002.28
Total assets and other debits.....	\$75,911,850.96

## LIABILITIES

Capital stock.....	\$27,969,300.00
Current and accrued liabilities.....	1,971,351.32
Deferred credits.....	3,167.89
Contributions in aid of construction.....	540.87
Reserves:	
Depreciation and depletion—Utility plant.....	40,750,450.48
Other.....	13,982.03
Surplus—Earned.....	5,194,107.77
Total liabilities and other credits.....	\$75,911,850.96

4

As shown on the preceding balance sheet, the Capitalized Cost of Gas Plant as of December 31, 1938, was \$56,649,798.58, of which \$56,101,875.49 represented Gas Plant in Service, summarized by functions as follows:

Production plant.....	\$26,460,050.10
Transmission plant.....	25,253,484.00
Distribution plant.....	2,795,063.04
General plant.....	1,503,258.35
Total.....	\$56,101,875.49

This report deals with the cost of the production plant, transmission plant, and general plant although a cursory examination was made of the distribution plant. The following summary sets forth the cost per Company books, reclassified by the Company as

shown by Schedule I, Page 10, of this report, and as adjusted by the examiners:

Particulars	Cost per books	Examiners' adjustments	As adjusted
Production plant.....	\$26,718,065.06	<i>\$384,673.83</i>	\$26,333,391.23
Transmission plant.....	25,279,965.69	<i>1,414,567.34</i>	23,865,398.35
General plant.....	1,306,761.70	<i>299,690.64</i>	1,006,831.06
Total.....	53,306,792.45	<i>2,099,171.81</i>	51,207,620.64

*Italic figures denote decrease.*

Schedule I of this report sets forth the total cost of Gas Plant in Service per Company books, Company's reclassification adjustments, Examiners' (F. P. C. staff) adjustments and the resulting adjusted balances, representing original cost as defined in the Commission's System of Accounts.

This schedule has been constructed to show separately the total cost of the production plant, transmission plant, and general plant, representing the cost dealt with in this report. The total cost per books, in this respect, of \$53,306,792.45, corresponds with that shown by Exhibit 20, page 32, column 4.

Attention is called to the total examiners' adjustments of \$2,099,171.81, representing a credit to the total capitalized cost of Gas Plant in Service, exclusive of distribution plant. This amount represents the net adjustment made by the examiners and is arrived at by the difference between credit adjustments, amounting to \$5,883,085.12 and debit adjustments of \$3,783,913.31, and is summarized by classes as follows:

Description	Amount
Company adjustments per Exhibit 20.....	\$1,804,383.48
Company adjustments—Prior utility acquisitions.....	232,930.69
Correction of accounting errors.....	1,480,227.70
Transfers to accounts other than gas plant in service.....	1,542,085.34

Examiners' adjustment—Net credit..... 2,099,171.81

Schedule 1-A sets forth all adjustments by sources, showing contra accounts involved. It also identifies the adjusting journal entries which are given in Volume II.

The total original cost of Gas Plant in Service, exclusive of distribution plant, at December 31, 1938, is summarized in the following tabulation which shows separately acquisitions of properties classed as operating units or systems.



**Company constructed and purchased from nonutilities:**

Cost per books.....	\$50,068,393.17
Adjustments.....	1,866,241.12

As adjusted.....	\$48,222,152.06
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**6 Acquisitions of prior utilities:**

Cost per books.....	\$3,218,399.28
Adjustments.....	232,930.69

As adjusted.....	\$2,985,468.59
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Total as adjusted—Dec. 31, 1938.....	51,207,620.64
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The above tabulation has been made to focus attention on properties acquired from prior utilities. As shown above and also by Exhibit 20, page 32, column 12, the cost capitalized per Company books for this class of acquisitions is \$3,218,399.28. By repricing these same properties, the Company arrives at a cost of \$4,639,010.78, as shown by Exhibit 20, page 32, column 13. This repricing would result in an increase in cost recorded in plant accounts of \$1,420,611.50. The Company adjustments or repricing are not concurred in. The only adjustment to this class of property approved by the examiners are shown in the above tabulation (\$232,930.69). They represent Company adjustments to reclassify capitalized cost and correct accounting errors.

An analysis of approximately ninety percent of such acquisitions and a careful examination of all vouchers, books and data available, together with consideration of each individual acquisition, lead to the conclusion there is no justification for any adjustments whereby the amounts now recorded in plant accounts would be increased. It is the opinion of the examiners that the amount recorded at the time of acquisition represent the original cost as near as can be determined.

7 The total proposed adjustment to this class of property, developed by the original cost study made by the Company, included a credit of \$967,151.87, classified as follows:

Credit plant accounts—Accrued depreciation.....	\$746,851.51
Estimated costs of obtaining.....	10,917.50
Estimated costs of construction.....	1,712.83
Correction of accounting errors.....	232,930.69

Total.....	\$967,151.87
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Of the above proposed adjustments, the examiners have approved only the correction of accounting errors representing a credit to Capitalized Cost of \$232,930.69.

Schedules 2 to 33, inclusive, set forth the investment in gas plant, exclusive of distribution plant, by accounts, showing the cost per books, staff adjustments, and the adjusted or original cost balances. These schedules are the result of a detailed examination made by the Commission's staff of accounts of the books, records, and documents of the Company, including the Company's Original Cost study. The adjustments include the reclassification of items shown in Schedule 1.

Schedule No. 34 is a summary of amounts transferred to Account 100.4, Gas Plant Held for Future Use, of the Commission's Uniform System of Accounts.

Schedule No. 35 is a statement of Account 107, Gas Plant Adjustments, showing the source of data and manner of determining amounts by the Company.

Schedule No. 36 is a statement of Investment in Coal Property. This investment was included in Gas Plant as of December 31, 1938, by the Company, although not included as a part of the original cost claimed per Exhibit 20. No adjusting entry has been proposed by the Company to transfer this cost to other accounts. This item has been eliminated from Gas Plant by the examiners and transferred to Account 110, Other Physical Property, by Balance Sheet Journal Entry No. 100.

Schedule No. 37 is a summary of an account designated by the Company as "Franchises, Patent Rights, and Other Intangibles" and was included in Gas Plant as of December 31, 1938. An analysis of this account discloses that it consists of three items as follows:

Patent rights:

Thermo-syphon system for gasoline absorption plant.....	\$458.66
Contracts and franchises:	
Acquired in acquisition of Clarksburg Light and Heat Co....	5,811.64
Contract for gas:	
Hamilton Gas Corporation.....	23,915.61
Total .....	30,185.91

The first two items shown above have been eliminated from Gas Plant by the Examiners and charged to Surplus by Balance Sheet Journal Entry No. 101.

The third item has also been eliminated from Gas Plant and transferred to Account 146, Other Deferred Debits, by Balance Sheet Journal Entry No. 101.

9 Volume II of this report, as stated hereinbefore, deals with adjustments made by the examiners and includes a summary of all adjustments, together with adjusting journal entries and a detailed explanation of each.

JOHN W. PACE,

John W. Pace,

*Senior Examiner of Accounts.*

EDWARD L. DUNN,

Edward L. Dunn,

*Examiner in Charge of Field Assignment.*

CLARKSBURG, WEST VIRGINIA, February 20, 1941.

Approved:

W. E. BAKER,

W. E. Baker,

*Chief Accountant.*

CHAS. W. SMITH,

Chas. W. Smith,

*Chief, Bureau of Accounts, Finance and Rates.*

**HOPE NATURAL GAS COMPANY—Continued**  
*Investment in gas plant per books and as adjusted as at Dec. 31, 1938*

Schedule No.	Ac- count No.	Description	Cost per books		Reclassification by com- pany		Cost per books re- classified	Examiners' adjustments		As adjusted
			(d)	(e)	(f)	(g)		Dr.	Cr.	
(a)	(b)	(c)						(h)	(i)	(j)
		<i>Natural gas production plant</i>								
2	330.1	Natural gas producing lands		\$1,331,100.55		\$3,319.84	\$3,319.84	\$267,904.31		\$3,319.84
3	330.2	Natural gas producing leaseholds:								
4		Operated		479,570.75			1,331,100.55	104,811.48		1,599,004.86
5	330.4	Unoperated		23,726.28			530,910.78	181,930.98		645,391.47
6	330.5	Rights of way		30,244.11	9,412.94	\$8,978.33	24,602.16			3,563.64
7	331.2	Other land and land rights		177,082.39	8,895.78	7,963.90	28,617.57			8,130.39
8	331.3	Field measuring and regulating station structures		4,370,612.79	3,894.08	5,520.62	213,163.94	651.94		91,138.92
9	332.1	Other production system structures		7,803,605.30	65,418.75	29,937.20	4,366,933.75	5,691.31		191,188.81
10	332.2	Producing gas wells—Well construction		3,040,755.47		3,679.04	7,865,361.59	391,689.83		4,060,477.71
11	332.2	Producing gas wells—Well equipment		7,930,541.90		8,023.71	7,885,561.59	8,078.12		7,610,509.75
		Field lines:								
12	333.11	Construction		29,637.87	35,990.16	38,233.64	7,987,042.53	921,753.13		8,622,499.58
13	333.12	Equipment		244,176.06	15,753.87	13,137.24	250,929.93	6,734.51		7,674,251.82
14	333.2	Field measuring and regulating station equip- ment		387,555.33	156,184.00		543,739.93	52,752.85		900.07
15	334	Drilling and cleaning equipment			45,030.75		45,030.75	31,758.09		1,256.63
	337	Other production equipment								
		Total gas production plant	373,518.64	26,460,950.10		115,503.68	26,718,065.96	2,291,459.58	2,676,133.41	26,333,391.23

## HOPE NATURAL GAS COMPANY—Continued

Schedule No. 1

Investment in gas plant per books and as adjusted as at Dec. 31, 1938—Continued

Schedule No.	Ac- count No.	Description	Cost per books		Reclassification by com- pany		Cost per books re- classified	Examiners' adjustments		As adjusted
			(d)	(e)	Dr.	Cr.		Dr.	Cr.	
<b>Transmission plant</b>										
16	351.12	Land	\$152,000.05	\$13,624.99		\$5,163.97	\$161,121.07	\$7,116.64	\$5,325.50	\$162,912.21
20	351.23	Rights of way	53,354.41	697.91		56,331.85	405,720.47	52,298.61	156,776.39	891,212.69
17	352.2	Compressor station structures	1,790,317.25	480,844.00		539,885.67	1,710,276.18	102,623.88	371,017.68	1,441,882.38
18	352.3	Measuring and regulating station structures	6,305.15	5,873.14		779.79	11,398.50	151.55	3,342.84	8,207.21
19	352.4	Other transmission system structures	6,709.29	997.85		359.03	7,348.11		5,72.42	6,775.69
20	353	Mains	14,614,229.98	296,750.65		292,513.14	14,618,467.49	556,162.13	1,042,554.90	14,132,074.72
21	354.2	Compressor station equipment	8,135,673.87	273,378.54		178,069.38	8,230,982.73	684,614.14	1,231,924.88	7,683,671.99
22	354.3	Measuring and regulating station equipment	26,234.00	5,100.65		1,961.90	29,662.75	3,044.23	14,891.07	17,615.91
23	354.4	Other transmission system equipment		15,188.39			15,188.39	5,827.16		21,015.55
Total transmission plant			25,253,484.00	1,101,546.42		1,673,664.73	25,279,965.69	1,411,838.34	2,826,405.08	23,865,368.35
<b>General plant</b>										
24	370	Land and land rights	154,500.82	43.13		27,936.22	126,677.73	7,202.00	36,898.52	96,981.21
25	371	Structure and improvements	282,005.30	26,385.90		51,067.86	237,323.34	2,176.81	14,612.37	225,887.78
26	372	Office furniture and equipment	339,989.32				239,989.32	13,516.77	74,822.75	178,683.34
27	373	Transportation equipment	211,115.41	3,951.90		53,636.30	161,431.01	2,779.07	21,895.59	142,314.49
28	374	Stores equipment		3,321.00			3,321.00	1,869.30	503.74	5,166.76
29	375	Shop equipment		64,168.92			63,168.92	43,106.82	2,990.57	104,185.17
30	376	Laboratory equipment		1,003.40			1,003.40			1,003.40
31	377	Tools and work equipment	449,871.11			249,110.52	200,760.59	9,319.42	205,534.68	4,545.33
32	378	Communication equipment	254,679.17				254,672.17		5,626.43	248,975.74
33	379	Miscellaneous equipment	30,484.22				30,484.22	525.00	19,961.38	1,147.84
Total general plant			1,593,558.35	97,874.25		382,370.90	1,308,761.70	80,615.39	380,546.03	1,008,831.06
Total, gas plant exclusive of distribution			53,309,792.45	1,572,680.31		1,672,939.31	53,256,797.45	3,283,919.31	5,865,085.12	51,267,690.64

## HOPE NATURAL GAS COMPANY

Schedule No. 1-A

## Summary of examiners' journal entries adjusting plant accounts showing types of adjustments and contra accounts affected

F.	Description	Company's adjustments per original cost study (exhibit 20)	Total examiners' adjustments				100-4	110	100-3	144	250-1	250-2	250-3	271	Distribution plant
			Company's adjustments to prior utility purchases		Examiners' other adjustments	Total examiners' adjustments	Utility plant held for future use	Other physical property	Construction work in progress	Retirement work in progress	Reserve for depreciation of utility plant	Reserve for amortization and depletion of producing natural gas lands and land rights	Reserve for abandoned leases	Earned surplus	
			A. J. E. No.	Amount											
	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
	Company adjustments accepted by examiners														
300	Transfers to and from utility plant in service accounts:														
	Debits.....	\$466,187.96													
	Credits.....	466,187.96													
301	Adjustments to agree with adopted inventory.....	\$179,769.12	326	\$8,227.19		\$187,996.31					\$187,996.31				
302	Capitalized structures or materials removed.....	269,273.27	327	6,831.45		275,104.70					275,104.70				
303	Depreciation on purchased property.....	412,186.80				412,186.80					412,186.80				
304	Abandoned—Still on books.....	78,903.31	329	29,336.25		99,241.76				\$99,241.76					
305	Items on books found in storage.....	37,464.60				37,464.60		\$25.75		37,438.85					
306	Transfers to and from other than utility plant in service accounts.....	\$11,080.04				\$11,080.04	\$13,967.21	55,905.81		141,607.02					
307	Adjustments of vouchers M-600 and A-155 estimates.....	158,767.75	331	67,101.74		225,869.49					225,869.49				
308	Voucher charges to investment not in ledger.....	69,559.52				69,559.52								\$69,559.52	
309	Correction of voucher amounts and records.....	53,805.31	332	48,145.03		5,660.28								5,660.28	
310	Estimated cost of obtaining.....	11,814.46				11,814.46								11,814.46	
311	Recording costs—From original papers.....	5,719.50				5,719.50								5,719.50	
312	Damages due to maintenance.....	8,402.43				8,402.43								8,402.43	
313	Removal of amounts shown on books—No equipment added at corresponding time, repairs, or could not identify charges on vouchers.....	11,284.41				11,284.41								11,284.41	
314	Improper charges and credits.....	51,002.29	333	1.00		51,002.29					51,002.29			1.00	
315	To restore original cost.....	38,992.16				38,992.16					38,992.16				
316	Repairs and replacements.....	79,832.19				79,832.19								79,832.19	
317	Fleet owners and quantity discounts.....	2,227.40				2,227.40								2,227.40	
318	Unproductive drilling deeper.....	72,473.08				72,473.08								72,473.08	
319	Removal of rig charges.....	429,707.12				429,707.12					429,707.12				
320	Arbitrary rig charges added.....	391,230.00				391,230.00					391,230.00				
321	Retirement of well construction—Change of well equipment.....	12,576.26				12,576.26					12,576.26				
322	Adjustment for lines taken up.....	344,330.43	334	24,857.94		369,188.37					369,188.37				
323	Unretired labor.....	263,977.16				263,977.16					263,977.16				
324	Transfer to distribution system.....	19,678.07				19,678.07									
325	To balance with books.....	167,236.40	335	37,953.77		109,282.63					248,281.03	\$252,752.18	\$104,811.48		\$19,678.07
326	Miscellaneous small adjustments.....	1,588.48				1,588.48					1,588.48				
	Transfers to and from utility plant in service accounts:														
	Debits.....	\$8,797.21													
	Credits.....	8,797.21	328												
	Abandoned lines not removed.....		330	1,076.34		1,076.34				1,076.34					
	Examiners' adjustments														
327	To reinstate construction costs expensed.....				\$1,480,227.70	1,480,227.70									1,480,227.70
328	To transfer adjusted cost of property used to transport coke oven gas.....				762,592.06	762,592.06		762,592.06							
329	To transfer to "Utility Plant Held For Future Use," the adjusted cost of field lines connected to nonproducing wells.....				\$1,126.61	1,126.61	21,126.61								
330	To realize depreciation on retirements of prior utility property.....				3,106.27	3,106.27					3,106.27				
331	To transfer to "Other Physical Property," cost of sites formerly used for compressing stations.....				901.30	901.30		901.30							



	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)
	<i>Company adjustments accepted by examiners</i>														
00	Transfers to and from utility plant in service accounts:														
	Debits.....	\$466,187.96													
	Credits.....	466,187.96													
01	Adjustments to agree with adopted inventory.....	\$179,769.12	326	\$8,227.19		\$187,996.31					\$187,996.31				
02	Capitalized structures or materials removed.....	269,273.27	327	5,831.43		275,104.70					275,104.70				
03	Depreciation on purchased property.....	412,186.80				412,186.80					412,186.80				
04	Abandoned—Still on books.....	78,905.51	329	29,336.25		98,241.76				\$99,241.76					
05	Items on books found in storage.....	37,464.60				37,464.60		\$25.75		37,438.85					
06	Transfers to and from other than utility plant in service accounts.....	211,089.04				211,089.04	\$13,967.21	55,505.81		141,607.02					
07	Adjustments of vouchers M-699 and A-155 estimates.....	158,767.75	331	67,101.74		225,869.49					225,869.49				
08	Voucher charges to investment not in ledger.....	69,559.52				69,559.52								\$69,559.52	
09	Correction of voucher amounts and records.....	53,805.31	332	48,145.03		5,660.28								5,660.28	
10	Estimated cost of obtaining.....	11,814.46				11,814.46								11,814.46	
11	Recording costs—From original papers.....	5,719.50				5,719.50								5,719.50	
12	Damages due to maintenance.....	8,492.43				8,492.43								8,492.43	
13	Removal of amounts shown on books—No equipment added at corresponding time, repairs, or could not identify charges on vouchers.....	11,284.41				11,284.41								11,284.41	
14	Improper charges and credits.....	51,003.29	333	1.00		51,002.29					51,003.29			1.00	
15	To restore original cost.....	38,992.16				38,992.16					38,992.16				
16	Repairs and replacements.....	79,832.19				79,832.19								79,832.19	
17	Fleet owners and quantity discounts.....	2,227.40				2,227.40								2,227.40	
18	Unproductive drilling deeper.....	72,473.08				72,473.08								72,473.08	
19	Removal of rig charges.....	429,707.12				429,707.12					429,707.12				
20	Arbitrary rig charges added.....	391,230.00				391,230.00					391,230.00				
21	Retirement of well construction—Change of well equipment.....	12,576.26				12,576.26					12,576.26				
22	Adjustment for lines taken up.....	344,550.43	334	24,237.94		368,808.37					368,808.37				
23	Unretired labor.....	263,977.16				263,977.16					263,977.16				
24	Transfer to distribution system.....	19,678.07				19,678.07									
25	To balance with books.....	167,236.40	335	57,953.77		109,282.63					248,281.03	\$252,752.18	\$104,811.48		\$19,678.07
	Miscellaneous small adjustments.....	1,588.48				1,588.48					1,588.48				
	Transfers to and from utility plant in service accounts:														
	Debits.....	\$8,797.21													
	Credits.....	8,797.21	328												
	Abandoned lines not removed.....		330	1,076.34		1,076.34				1,076.34					
	<i>Examiners' adjustments</i>														
26	To reinstate construction costs expensed.....				\$1,480,227.70	1,480,227.70								1,480,227.70	
27	To transfer adjusted cost of property used to transport coke oven gas.....				762,592.06	762,592.06		762,592.06							
28	To transfer to "Utility Plant Held For Future Use," the adjusted cost of field lines connected to nonproducing wells.....				\$1,126.61	1,126.61	21,126.61								
29	To realize depreciation on retirements of prior utility property.....				\$,106.27	1,106.27					3,106.27				
30	To transfer to "Other Physical Property," cost of sites formerly used for compressing stations.....				901.50	901.50		901.50							
31	To transfer to "Utility Plant Held For Future Use," the adjusted cost of unoperated leaseholds.....				584,382.23	584,382.23	584,382.23								
32	To transfer to "Utility Plant Held For Future Use," the cost of wells not connected to utility plant.....				169,642.68	169,642.68	169,642.68								
33	Transfer to construction work in progress—Account 100-3.....				16.65	16.65			\$16.65						
34	Transfer from production plant to transmission plant (Dr. and Cr. \$6,965.64).....														
35	Transfer within general plant (Dr. and Cr. \$7,200.00).....														
36	To transfer additional cost of prior units to distribution system.....				317.34	317.34									317.34
	Total Examiners' Adjustments.....	1,804,383.43		232,389.69	61,857.64	2,099,171.81	789,148.73	819,025.12	16.65	279,363.97	1,947,976.54	252,752.18	104,811.48	1,598,769.95	19,965.41

Figures denote decrease.

Pages 13 to 22 omitted.]



## HOPE NATURAL GAS COMPANY

Natural gas production plant, account 332-1, producing gas wells, well construction, capitalized cost per books and as adjusted as at Dec. 31, 1938

[Segregated by production areas]

Production area number	Construction cost		Examiners' adjustments		As adjusted
	Number of wells	Cost per books	Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)
1-1					
1-2	4	\$39,518.96	\$4,536.00	\$7,620.05	\$36,434.91
1 Ind.	1	6,502.58	1,134.00	1,802.14	5,834.44
2-1	14	65,112.63	5,670.00	10,297.92	60,484.71
2-2					
2-3	1	6,281.93			6,281.93
3-1	20	101,157.82	4,536.00	12,063.15	93,630.67
3-2	9	76,576.64	6,804.00	11,905.87	71,474.77
3-3	1	9,815.91	1,134.00	1,997.37	8,952.54
3-4					
3-5					
3-6					
3 Ind.					
4-1	12	58,373.52	2,268.00	9,457.31	51,184.21
4-2	1	11,234.15	1,134.00	2,033.93	10,334.22
4 Ind.	1	1,080.00		293.63	786.37
5-4	24	118,821.15	7,938.00	24,144.92	102,614.23
5 Ind.					
6-1	2	9,637.77	1,134.00	3,764.08	7,007.69
6-2	10	34,207.16	4,536.00	4,982.95	\$3,700.21
6 Ind.	1	9,792.45	1,134.00	2,304.79	8,621.66
7-1	87	233,708.50	5,670.00	11,356.35	228,022.15
7-2	3	14,206.01	1,278.00	3,140.22	12,343.79
8-1	36	165,306.25	13,608.00	17,489.61	162,424.64
8 Ben.	5	62,650.43	5,670.00	8,532.27	59,789.16
8 Ind.	2	27,839.31	2,268.00	3,798.68	26,388.63
9-1	20	41,570.07		7,975.03	33,595.04
9-2	2	11,898.84	2,268.00	3,134.95	11,031.39
9 Ind.					
10-1	21	82,093.21	6,804.00	13,226.60	75,670.61
11-1	14	56,272.29	3,477.00	8,472.14	51,277.15
11-2					
11-3	3	22,762.22	3,402.00	4,940.07	21,224.15
11 Ind.					
12-1	10	38,511.77	2,268.00	3,127.65	37,952.12
12 Ind.	1	963.16		81.97	881.19
13-1	48	220,137.53	41,958.00	43,688.93	219,000.60
13-2	24	114,486.28	14,742.00	19,813.15	109,415.13
13-3	24	128,251.70	20,416.76	25,691.35	122,977.11
24 13-4	3	15,511.03	3,402.00	2,691.12	16,221.91
13 Ind.					
14-1	6	19,185.23	1,134.00	6,257.03	14,002.30
14-2					
14-3					
14 Ind.	1	5,332.47	1,134.00	1,459.56	5,006.91
15-1	1	4,362.30			4,362.30
15-2	4	21,475.87	1,134.00	2,799.57	19,810.30



Natural gas production plant, account 332-1, producing gas wells, well construction, capitalized cost per book's and as adjusted as at Dec. 31, 1938—Continued

[Segregated by production areas]

Production area number	Construction cost		Examiners' adjustments		As adjusted
	Number of wells	Cost per books	Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)
15-3	1	\$10,166.63	\$1,134.00	\$1,192.63	\$10,108.00
15 Ind	1	6,610.24		360.17	6,250.07
16-1	1	1,872.33			1,872.33
16 Ind					
17-1	1	4,742.99	1,134.00	1,102.31	3,774.18
17-2	1	883.61			883.61
17-3					
17-4					
17-5	1	971.25		173.10	818.15
17 Ind	1	4,867.34	1,134.00	1,437.72	4,569.62
18-1	10	30,191.22	5,670.00	7,352.48	48,508.74
18-2	6	28,779.39	3,402.00	4,527.72	27,653.67
18-3	14	66,962.17	6,804.00	9,858.15	63,908.02
18-4	4	17,764.54	2,268.00	2,989.96	17,042.58
18-5	1	450.97		22.60	428.37
18 Ind	1	1,823.64			1,823.64
19-1	71	379,649.82	57,870.07	65,850.59	371,609.39
19-2	6	54,619.54	6,804.00	7,324.01	34,090.53
19 Ind		5,234.70	1,154.00	6,368.70	
20-1	57	268,944.12	40,824.00	47,131.99	262,636.13
20-2	14	87,314.66	14,742.00	21,754.92	80,301.74
20 Ind	7	60,564.83	7,938.00	22,609.18	45,803.65
21-1	9	45,557.78	5,670.00	6,107.53	45,120.25
21-2	29	118,519.03	19,278.00	28,014.95	109,782.08
21-3	3	17,139.92	2,268.00	2,697.91	16,710.01
21 Ind	2	35,414.85	2,268.00	18,838.90	18,843.95
22-1					
22-2	2	13,606.36	2,268.00	3,646.44	12,227.92
22-3					
22-4					
23-1		16,588.98		16,588.98	
23 Ind		28,224.67	2,268.00	30,492.67	
24-1	25	259,658.67			259,658.67
24-2	14	154,773.76		164.83	154,608.93
24-3	6	73,914.14			73,914.14
24-4	24	261,508.63			261,508.63
24-5	3	33,883.55		9.06	33,874.49
24-6	2	17,731.79			17,731.79
24-7	3	32,066.53			32,066.53
24 Ind	1	11,515.74			11,515.74
25-1	9	68,490.42	10,206.00	10,638.08	68,028.34
25-2	2	15,251.78	2,268.00	3,010.40	14,569.38
25-3	7	46,775.81	7,938.00	7,706.97	47,006.54
25-4	2	12,404.43	2,268.00	2,043.95	12,628.48
25-5	8	82,376.98			82,376.98
25-6	4	45,384.38		18,041.08	27,343.30
25 Ind	4	31,866.93	4,536.00	5,757.28	30,645.65
26-1	3	26,817.54	3,402.00	3,788.75	26,430.79
26-2	1	7,016.18	1,134.00	957.39	7,192.79
26-3	2	14,605.17	2,268.00	3,086.21	13,786.96
26 Ind					
27 Ind					

*Natural gas production plant, account 332-1, producing gas wells, well construction, capitalized cost per books and as adjusted as at Dec. 31, 1938—Continued*

[Segregated by production areas]

Production area number	Construction cost		Examiners' adjustments		As adjusted
	Number of wells	Cost per books	Dr.	Cr.	
Sundry.....		\$31,168.44	\$200.00	\$31,368.44	
Total.....	772	4,370,612.79	391,689.83	672,824.91	\$4,089,477.71
Transfers to and from utility plant in service accounts.....				3,679.04	
Other adjustments.....			391,689.83	669,145.87	
			391,689.83	672,824.91	

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Schedule No. 10

**HOPE NATURAL GAS COMPANY**

*Natural gas production plant, account 332-2, producing gas wells, well equipment, capitalize cost per books and as adjusted as at Dec. 31, 1938*

[Segregated by production areas]

Production area number	Number of wells	Gas produced year 1938 M. C. F.	Cost per books	Examiners' adjustments		As adjusted
				Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)	(g)
1-1.....	40	113,145	\$99,410.34	\$82.62	\$2,845.96	\$96,647.00
1-2.....	6	18,675	25,426.71		14.58	25,412.13
1 Ind.....	2	163,756	7,957.73		132.18	7,825.55
2-1.....	138	171,772	403,180.82	101.90	3,635.50	399,647.22
2-2.....	5	31,146	5,534.91		7.63	5,527.28
2-3.....	3	6,809	3,586.93			3,586.93
3-1.....	95	426,847	337,011.98	107.78	5,799.53	331,410.23
3-2.....	9	33,770	36,811.66		555.90	36,255.76
3-3.....	5	31,704	15,160.24	5.75	338.26	14,827.73
3-4.....	1	43,114	3,360.87			3,360.87
3-5.....	1	64	5,689.99			5,689.99
3-6.....	3	12,790	7,238.00			7,238.00
3 Ind.....	2	1,898	6,303.75			6,303.75
4-1.....	37	158,911	142,373.78	104.17	3,899.71	138,578.24
4-2.....	9	49,743	35,530.08		79.90	35,450.18
4 Ind.....	3	12,478	5,642.33		18.40	5,623.93
5-1.....	201	996,818	561,160.85	676.10	4,330.36	557,506.59
5 Ind.....	2	8,216	5,075.46			5,075.46
6-1.....	63	303,689	135,502.34	5.79	6,720.16	128,877.97
6-2.....	134	268,066	241,030.46	129.10	3,982.90	237,176.66
6 Ind.....	2	10,804	5,415.38			5,415.38
7-1.....	568	2,585,884	1,348,223.09	721.61	11,477.73	1,337,496.97
7-2.....	18	112,545	55,374.07	359.29	175.78	55,557.58
8-1.....	288	1,886,766	616,346.91	1,351.21	2,433.83	615,864.79
8 Ben. 1.....	19	509,817	81,558.65	141.88	1,218.98	82,521.55
8 Ind.....	2	30,927	10,802.07		54.64	11,747.43
9-1.....	138	259,844	346,430.61	579.02	20,254.63	326,755.00
9-2.....	3	779	7,057.94		1,149.14	5,908.80

*Natural gas production plant, account 332-2, producing gas wells, well equipment, capitalized cost per books and as adjusted as at Dec. 31, 1938—*  
Continued

[Segregated by production areas]

Production area number	Number of wells	Gas produced year 1938 M. C. F.	Cost per books	Examiners' adjustments		As adjusted
				Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)	(g)
9 Ind.	1	13,470	\$2,133.78			\$2,133.78
10-1	272	1,149,506	667,359.36	\$489.33	\$25,927.70	641,920.99
11-1	93	118,809	197,097.43	34.08	9,363.85	187,767.66
11-2	1	52	1,960.44		227.30	1,733.14
11-3	3	8,432	8,182.07		30.04	8,152.03
11 Ind.	2	986	4,083.51		13.92	4,069.59
12-1	60	503,643	130,280.51	31.60	22,388.67	107,923.44
12 Ind.	5	27,628	12,008.40		3,370.45	8,637.95
13-1	108	310,114	206,043.87	13.92	5,350.75	200,707.04
13-2	76	120,464	160,976.83	178.05	5,140.58	156,014.30
13-3	76	326,735	131,844.72	4.11	6,196.12	125,652.71
13-4	7	39,178	16,925.61	19.64	536.37	16,308.88
13 Ind.	5	100,512	15,246.57		2,716.09	12,530.48
27 14-1	121	428,540	260,828.11	12.78	1,366.84	259,474.05
14-2	4	3,037	4,922.42		553.59	4,368.83
14-3	1	12,272	4,925.43			1,925.43
14 Ind.	2	11,492	4,231.56		24.38	4,207.18
15-1	15	89,657	27,868.98		88.64	27,780.34
15-2	6	32,564	15,105.52		6.47	15,099.05
15-3	2	10,616	5,439.22			5,439.22
15 Ind.	2	11,069	7,647.60		142.20	7,505.40
16-1	15	33,282	17,151.07	16.38	2,451.29	14,716.16
16 Ind.	1	451	1,405.25			1,405.25
17-1	2	18,280	4,619.10			4,619.10
17-2	8	46,071	20,719.42		420.81	20,298.61
17-3	2	30,615	2,913.17		188.13	2,725.04
17-4	1	2,624	2,227.85		1,177.81	1,050.04
17-5	3	13	6,055.41		3,158.69	2,896.72
17 Ind.	6	40,239	9,586.67	8.56	1,118.83	8,476.40
18-1	32	115,815	59,676.94	21.33	1,296.27	58,402.00
18-2	14	130,686	33,946.74	3.84	570.70	33,379.98
18-3	24	114,312	47,196.95	10.22	336.70	46,870.47
18-4	9	20,184	25,404.35		285.18	25,119.17
18-5	6	19,786	10,481.59		3,518.95	6,962.64
18 Ind.	5	24,082	9,745.86	12.14	7.60	9,750.40
19-1	104	722,343	249,939.53	298.79	3,565.44	246,672.90
19-2	6	57,826	14,347.67	11.95	12.45	14,347.17
19 Ind.	2		6,781.35		2,883.34	3,898.01
20-1	121	468,743	209,722.29	1,728.13	3,319.77	206,140.65
20-2	16	78,779	26,823.81		1,367.64	25,459.17
20 Ind.	11	214,109	29,343.38		4,824.75	24,518.63
21-1	11	33,133	28,795.84		1,919.30	26,876.54
21-2	41	137,200	73,963.53		980.12	73,013.41
21-3	4	15,068	10,600.21	27.42	377.53	10,250.10
21 Ind.	3	30,792	12,312.92		7,253.79	5,059.13
22-1	8	39,906	14,421.02		7,964.25	6,456.77
22-2	5	31,415	11,813.79		2,301.97	9,511.82
22-3	10	110,930	24,361.76		11,631.62	12,930.14
22-4	2	12,567	4,451.04		1,885.98	2,565.06
23-1			8,126.02		8,126.02	
23 Ind.			11,700.09		11,700.09	
28 24-1	25	196,992	69,358.27	299.88		69,658.15
24-2	14	52,999	49,353.44		6.20	49,347.24

*Natural gas production plant, account 332-1, producing gas wells, well equipment, capitalized cost per books and as adjusted as at Dec. 31, 1938—Continued.*

[Segregated by production areas]

Production area number	Number of wells	Gas produced year-1938 M. C. F.	Cost per books	Examiners' adjustments		As adjusted
				Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)	(g)
24-3	6	30,608	\$30,139.72			\$30,139.72
24-4	24	112,179	111,647.66			111,647.66
24-5	3	31,574	16,081.33		\$50.61	16,030.72
24-6	2	15,473	4,319.03			4,319.03
24-7	3	249,591	14,030.54			14,030.54
24 Ind.	1	6,530	6,590.19			6,590.19
25-1	9	6,503	17,903.70		35.17	17,868.53
25-2	2	15,387	4,418.57		14.38	4,404.19
25-3	8	32,202	19,391.71		824.46	18,567.25
25-4	2	5,535	4,379.97			4,379.97
25-5	8	24,623	21,258.96			21,258.96
25-6	4	40,988	26,329.70		8,408.94	17,920.76
25 Ind.	4	4,903	7,616.76		7.60	7,609.16
26-1	8	70,139	14,350.71		4,838.96	9,511.75
26-2	2	16,501	3,621.99		1,205.14	2,416.85
26-3	2	1,148	4,993.74		6.09	4,987.65
26 Ind.			2,808.57		2,808.57	
27 Ind.	3	10,134	2,806.80		7.21	2,799.59
Sundry			35,346.41	\$489.75	35,836.16	
Total	3,261	14,545,783	7,893,605.30	8,078.12	291,173.67	7,610,509.75
Transfers to and from: utility plant in service accounts					8,023.71	
Other adjustments				8,078.12	283,149.96	
				8,078.12	291,173.67	

[Pages 29 to 60 omitted.]

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Schedule No. 35

**HOPE NATURAL GAS COMPANY**

*Account 107—Gas plant adjustments*

*Details of account as at Dec. 31, 1938*

Description	Amount
(a)	(b)
Clarksburg Light & Heat Co. Property Appreciation	\$94,814.75

Details of this amount shown as per letter below:

MAY 17, 1940.

Mr. J. A. HENNIG,  
*Examiner-In-Charge,*  
*Federal Power Commission,*  
*Clarksburg, W. Va.*

DEAR MR. HENNIG: Referring to your letter to me of April 25, 1940, requesting an explanation of the Property Appreciation Account (Clarksburg Light and Heat Company) and how the amount of \$94,814.75 was determined, please be advised as follows:

In 1929 the company purchased the Physical Properties of the Clarksburg Light and Heat Company for 13,693 shares of Hope Natural Gas Company stock and \$10.67 in cash. This was treated as receipt by the Clarksburg Company of \$1,464,114.75, which amount was \$94,814.75 above the net book cost of these properties as shown on the Clarksburg Company's books. The Hope Company reflected these properties and the book depreciation thereon on its books at the same amounts as they appeared on the Clarksburg Company's books and charged \$94,814.75 to "Property Appreciation Account (Clarksburg Light and Heat Company)" by the voucher to which you referred.

Very truly yours,

(s) GEO. N. REED.

[Pages 62 to 64 omitted.]

**EXHIBIT NO. 58.—FEDERAL POWER COMMISSION UNIFORM SYSTEM OF ACCOUNTS PRESCRIBED FOR NATURAL GAS COMPANIES (1940)**

**DEFINITIONS**

[Pages 1 to 2 omitted]

When used in this system of accounts:

1. "Accounts" means the accounts prescribed in this system of accounts.

2. "Actually issued," as applied to securities issued or assumed by the utility, means those which have been sold to bona-fide purchasers for a valuable consideration (including those issued in exchange for other securities or other property); also securities issued as dividends on stock, and those which have been issued in accordance with contractual requirements direct to trustees of sinking funds.

3. "Actually outstanding", as applied to securities issued or assumed by the utility, means those which have been actually issued and are neither retired nor held by or for the utility; provided, however, that securities held by trustees shall be considered as actually outstanding.

4. "Amortization" means the gradual extinguishment of an amount in an account by prorating such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized.

5. A. "Associated companies" means companies or persons that, directly or indirectly, through one or more intermediaries, control, or are controlled by, or are under common control with, the accounting company.

B. "Control" (including the terms "controlling", "controlled by", and "under common control with") means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of a company, whether such power is exercised through one or more intermediary companies, or alone, or in conjunction with, or pursuant to an agreement, and whether



such power is established through a majority or minority ownership or voting of securities, common directors, officers, or stockholders, voting trusts, holding trusts, associated companies, contract, or any other direct or indirect means.

6. "Book cost" means the amount at which property is recorded in these accounts without deduction of related reserves or other accounts. As applied to gas plant, "book cost" means the amount at which property is included in account 100.6 or in accounts 100.1 to 100.4.

7. "Buildings." (See Gas plant instruction 10.)

8. "Commission" means the Federal Power Commission.

9. "Construction cost, components of." (See Gas plant instruction 5.)

10. "Cost" means the amount of money actually paid for property or services or the cash value at the time of the transaction of any consideration other than money. (See, however, Gas plant instruction 3.)

11. "Cost of removal" means the cost of demolishing, dismantling, tearing down, or otherwise removing gas plant, including the cost of transportation and handling incidental thereto.

12. "Debt expense" means all expenses in connection with the issuance and initial sale of evidences of debt, such as fees for drafting mortgages and trust deeds; fees and taxes, for issuing or recording evidences of debt; cost of engraving and printing bonds and certificates of indebtedness; fees paid trustees; specific costs of obtaining governmental authority; fees for legal services; fees and commissions paid underwriters, brokers, and salesmen for marketing such evidences of debt; fees and expenses of listing on exchanges; and other like costs.

13. "Depletion," as applied to natural gas producing land and land rights, means the loss in service value incurred in connection with the exhaustion of the natural resource in the course of service.

14. "Depreciation," as applied to depreciable gas plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of gas plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and

requirements of public authorities, and, in the case of natural gas companies, the exhaustion of natural resources.

15. "Discount," as applied to the securities issued or assumed by the utility, means the excess of the par (stated value of no par stocks) or face value of the securities plus interest or dividends accrued at the date of the sale over the cash value of the consideration received from their sale.

16. "Distribution system." (See Gas plant instruction 16.)

17. "Equipment." (See Gas plant instruction 11.)

18. "Improvements." (See Gas plant instruction 10.)

19. "Investment advances" means advances, represented by notes or by book accounts only, with respect to which it is mutually agreed or intended between the creditor and debtor that they shall be settled by the issuance of capital stock or long-term obligations, or shall not be subject to current settlement.

20. "Land and land rights." (See Gas plant instruction 9.)

21. "Minor items of property" means the associated parts or items of which units of property are composed.

22. "Natural gas" means either natural gas unmixed, or any mixture of natural and artificial gas.

23. "Natural gas company" means a person engaged in the transportation of natural gas in interstate commerce, or the sale in interstate commerce of such gas for resale.

24. "Net book cost," when applied to gas plant means the book cost less related depreciation, amortization, and depletion reserves. When applied to other property, it means book cost less related reserves for loss in value.

25. "Net original cost," as applied to gas plant, means the original cost less related depreciation, amortization, and depletion reserves.

26. "Net salvage value" means the salvage value of property retired less the cost of removal.

27. "Nominally issued," as applied to securities issued or assumed by the utility, means those which have been signed, certified, or otherwise executed, and placed with the proper officer for sale and delivery, or pledged, or otherwise placed in some special fund of the utility, but which have not been sold or issued direct to trustees of sinking funds in accordance with contractual requirements.

28. "Nominally outstanding," as applied to securities issued or assumed by the utility, means those which, after being actually issued have been reacquired by or for the utility under circum-

stances which require them to be considered as held alive and not retired; provided, however, that securities held by trustees shall be considered as actually outstanding.

29. "Original cost," as applied to gas plant, means the cost of such property to the person first devoting it to public service.

30. "Person" means an individual, a corporation, a partnership, an association, a joint-stock company, a business trust, or any organized group of persons, whether incorporated or not, or any receiver or trustee.

31. "Premium," as applied to the securities issued or assumed by the utility, means the excess of the cash value of the consideration received from their sale over the sum of their par (stated value of no par stocks) or face value and interest or dividends accrued at the date of sale.

32. "Property retired," as applied to gas plant, means property which has been removed, sold, abandoned, destroyed, or which for any cause has been withdrawn from gas service.

33. "Replacing" or "replacement," when not otherwise indicated in the context, means the construction or installation of gas plant in place of property retired, together with the removal of the property retired.

34. "Salvage value" means the amount received for property retired, less any expenses incurred in connection with the sale or in preparing the property for sale, or, if retained, the amount at which the material recoverable is chargeable to Account 131, Materials and Supplies, or other appropriate account.

35. "Service value" means the difference between original cost and the net salvage value of gas plant.

36. "Structures." (See Gas plant instruction 10.)

37. "Transmission system." (See Gas plant instruction 16.)

38. "Retirement units" means those items of gas plant which, when retired, with or without replacements, are accounted for by crediting the book cost thereof to the gas plant account in which included.

39. "Utility," as used herein and when not otherwise indicated in the context, means any natural gas company to which this system of accounts is applicable.

[Pages 6 to 30 omitted.]

## XI. RESERVES

### 250.1 RESERVE FOR DEPRECIATION OF GAS PLANT

- A. This account shall be credited with the following:
- Amounts charged to Account 503.1, Depreciation, to Account 508, Income from Gas Plant Leased to Others, to clearing accounts, or to income or other accounts for currently accruing depreciation.
  - Amounts charged to Account 414, Miscellaneous Debits to Surplus, for past accrued depreciation.
  - Amounts of depreciation applicable to gas properties acquired as operating units or systems. (See Gas plant instruction 4.)
  - Amounts chargeable upon approval of the Commission to Account 141, Extraordinary Property Losses.
  - Amounts of depreciation applicable to gas plant donated to the utility.
- B. At the time of retirement of depreciable gas plant in service, this account shall be charged with the book cost of the property retired and the cost of removal, and shall be credited with the salvage value and any other amounts recovered, such as insurance.
- C. For balance sheet purposes, this account shall be regarded and treated as a single composite reserve. For purposes of analysis, however, each utility shall maintain records in which the depreciation reserve shall be segregated according to the following functional classification of gas plant: (1) Production—manufactured gas, (2) production—natural gas, (3) storage, (4) transmission, (5) distribution, and (6) general. The credits and debits to the reserve shall be so made as to show separately (1) the amount of the accrual for depreciation, (2) the book cost of property retired, (3) cost of removal, (4) salvage, and (5) other items, including recoveries from insurance.
- D. When transfers of property are made from one utility plant account to another or from or to nonutility property, the accounting shall be as provided in Gas plant instruction 14.
- E. This account shall be subdivided as follows:
- 250.11 Reserve for Depreciation of Gas Plant in Service.
  - 250.12 Reserve for Depreciation of Gas Plant Leased to Others.
  - 250.13 Reserve for Depreciation of Gas Plant Held for Future Use.

Note.—The utility is restricted in its use of the reserve to the purposes set forth above. It shall not divert any portion of the reserve to surplus or make any other use thereof without the approval of the Commission.

32      250.2    RESERVE FOR AMORTIZATION AND DEPLETION OF PRODUCING NATURAL GAS LAND AND LAND RIGHTS

A. This account shall be credited with amounts charged to Account 503.2, Amortization and Depletion of Producing Natural Gas Land and Land Rights, or Account 508, Income from Gas Plant Leased to Others, to provide for the current amortization and depletion of land and land rights from which natural gas is obtained. (See Gas plant instruction 9-I.)

B. This account shall also be credited with such amounts as are necessary to reflect, as of the effective date of this system of accounts, the portion of the cost of land and land rights which have been exhausted through the extraction of natural gas. To the extent that provision has not previously been made for amortization and depletion of such land and land rights, amounts credited to this reserve shall be concurrently debited to Account 414, Miscellaneous Debits to Surplus.

C. When natural gas-producing land or land rights are sold, relinquished, or otherwise retired from service, the book cost of the land or land rights so retired, less any proceeds realized at retirement, shall be charged to this account; provided, however, that any excess of the book cost (less proceeds realized from sale) over the amount accumulated therefor in this reserve shall be debited to the appropriate surplus account, unless otherwise authorized or directed by the Commission.

D. Records shall be maintained so as to show separately the balance applicable to each item of land and land rights which is being amortized or depleted, except that natural gas land and land rights which constitute an interest in one pool of gas may be grouped to form one unit for amortization and depletion and the reserve applicable thereto need not be segregated to show the amount related to each gas right included therein.

E. This account shall be subdivided as follows:

250.21    Reserve for Amortization and Depletion of Producing Natural Gas Land and Land Rights—Gas Plant in Service.

250.22    Reserve for Amortization and Depletion of Producing Natural Gas Land and Land Rights—Gas Plant Leased to Others.

NOTE.—The utility is restricted in its use of the reserve to the purposes set forth above. It shall not divert any portion of the reserve for surplus or make any other use thereof without approval of the Commission.

[Pages 32 and 35 omitted.]

## INSTRUCTIONS—GAS PLANT ACCOUNTS

## 1. PURPOSE OF GAS PLANT ACCOUNTS

A. The summary gas plant accounts are as follows:

## 100. Gas Plant.

100.1 Gas Plant in Service.

100.2 Gas Plant Leased to Others.

100.3 Construction Work in Progress.

100.4 Gas Plant Held for Future Use.

100.5 Gas Plant Acquisition Adjustments.

100.6 Gas Plant in Process of Reclassification.

## 107. Gas Plant Adjustments.

B. Account 100 is a caption by which shall be reported the amounts in accounts 100.1 to 100.6, inclusive.

C. Accounts 100.1 to 100.4, inclusive, are designed to show the original cost of gas plant acquired as operating units or systems by purchase, merger, consolidation, liquidation, or otherwise, and the cost to the utility of all other gas plant recorded in these accounts.

D. Account 100.5 is designed to show the difference between the cost to the utility of gas plant acquired as operating units or systems by purchase, merger, consolidation, liquidation, or otherwise, and the original cost of the plant, due consideration being given to any depreciation, depletion, or amortization recorded by the accounting utility at the date of acquisition.

E. Account 100.6 is designed to be used as a control account for gas plant at the effective date of this system of accounts pending the distribution thereof in accordance with the accounts prescribed herein.

F. Account 107 is designed to show the amount by which the book cost of gas plant at the effective date of this system of accounts differs from the cost of the plant to the utility when the difference is not properly includible in other accounts. It shall include all write-ups in the books as of the effective date of this system of accounts.

NOTE.—See balance sheet accounts 100 and 107.



## 2. CLASSIFICATION OF GAS PLANT AT EFFECTIVE DATE OF SYSTEM OF ACCOUNTS

A. Each utility shall classify its gas plant as of the effective date of this system of accounts in accordance with the gas plant accounts prescribed herein. The classification shall be so made as to show both the original cost and the cost to the utility of its gas plant.

B. The cost to the utility of its gas plant shall be ascertained by analysis of the utility's records. In ascertaining the cost it is not intended that any correction need be made for depreciation, depletion, or amortization applicable to operating units or systems previously acquired, whether or not such depreciation, depletion, or amortization was recorded in the books of the accounting utility. It is likewise not intended that adjustments shall be made to record in gas plant accounts amounts previously charged to operating expenses in accordance with the uniform system of accounts in effect at the time or in accordance with the discretion of management as exercised under such uniform system of accounts.

C. The detailed gas plant accounts (301 to 390, inclusive) shall be stated on the basis of cost to the utility of plant constructed by it and the original cost, estimated if not known, of plant acquired as an operating unit or system. The difference between the original cost, as above, and the cost to the utility of plant includible in accounts 100.1 to 100.4, inclusive, after giving effect to any depreciation, depletion, or amortization recorded by the accounting utility at the time of acquisition, shall be recorded in Account 100.5, Gas Plant Acquisition Adjustments. The original cost of gas plant may be determined by analysis of the utility's records or those of predecessor or vendor companies with respect to gas plant previously acquired as operating units or systems and the difference between the original cost so determined and the cost to the utility, with adjustments for retirements from date of acquisition to the effective date of this system of accounts, shall be entered in Account 100.5, Gas Plant Acquisition Adjustments. When practicable, amounts recorded in account 100.5 shall be classified according to the nature of the items of which composed. Any difference between the cost of gas plant and its book cost, when not properly includible in other accounts, shall be recorded in Account 107, Gas Plant Adjustments.

D. Not later than 2 years after the effective date of this system of accounts, each utility shall have completed the studies necessary for classifying its gas plant as of the effective date of this system of accounts in accordance with the accounts prescribed herein and it shall submit to the Commission the entries it proposes to make to carry out the provisions of this instruction. It shall submit, also, a comparative balance sheet showing the accounts and amounts appearing in its books as of the effective date of this system of accounts and the accounts and respective amounts as of the same date after the proposed entries shall have been made.

E. Pending the classification of gas plant at the effective date of this system of accounts in accordance with the accounts prescribed herein, each utility shall maintain its present accounts with respect to such property as subaccounts of Account 100.6, Gas Plant in Process of Reclassification.

### 3. GAS PLANT TO BE RECORDED AT COST

A. All amounts included in the accounts for tangible gas plant consisting of plant acquired as an operating unit or system shall be stated at the original cost incurred by the person who first devoted the property to gas service. All other tangible gas plant shall be included in the accounts at the cost incurred by the utility.

B. All amounts included in the accounts for intangible gas plant shall likewise be stated on the basis provided in paragraph A above except as otherwise provided in the texts of the intangible accounts.

38 C. Where the term "cost" is used in the detailed gas plant accounts, it shall have the meaning stated in paragraphs A and B above and shall include not only the materials, supplies, labor, services, and other items consumed or employed in the construction and installation of gas plant, but also the cost of preliminary studies, plans, surveys, engineering, supervision, and general expenses, which contribute directly and immediately to gas plant without duplication of such costs.

D. When the consideration given for property is other than cash, the value of such consideration shall be determined on a cash basis. In the entry recording such transaction, the actual consideration shall be described with sufficient particularity to identify it. The utility shall be prepared to furnish the Commission the particulars of its determination of the cash value of the consideration, if other than cash.

E. When property is purchased under a plan involving deferred payments, no charge shall be made to the gas plant accounts for interest, insurance, or other expenditures occasioned solely by such form of payment.

F. Gas plant contributed to the utility or constructed by it from contributions to it of cash or its equivalent shall be charged to the gas plant accounts at original cost. There shall be credited to the depreciation, depletion, and amortization reserve accounts the estimated amount of depreciation, depletion, and amortization applicable to the property at the time of its contribution to the utility. The difference between the amounts included in the gas plant accounts and the reserve accounts shall be credited to Account 265, Contributions in Aid of Construction.

NOTE.—Amounts received for construction which are ultimately to be refunded, wholly or in part, shall be credited to Account 241, Customers' Advances for Construction. When the amount to be refunded has been finally determined, any credit balance remaining in account 241 shall be credited to Account 265, Contributions in Aid of Construction.

#### 4. GAS PLANT PURCHASED

A. When gas plant constituting an operating unit or system is acquired by purchase, merger, consolidation, liquidation, or otherwise, after the effective date of this system of accounts, the cost of acquisition, including expenses incidental thereto and properly includible in gas plant, shall be charged to Account 100.1, Gas Plant in Service, Subaccount 391, Gas Plant Purchased.

B. The accounting for the acquisition shall then be completed as following:

(1) The original cost, estimated if not known, shall be credited to Account 100.1, Gas Plant in Service, Subaccount 391, Gas Plant Purchased, and concurrently charged to Account 100.1, Gas Plant in Service, Account 100.2, Gas Plant Leased to Others, Account 100.3, Construction Work in Progress, Account 100.4, Gas Plant Held for Future Use, as appropriate, and distributed to the detailed accounts which they control.

(2) The depreciation, or amortization and depletion reserve requirements applicable to the original costs of the properties purchased, if required by the Commission to be recorded by the accounting utility, shall be charged to Account 100.1, Gas Plant in Service, Subaccount 391, Gas Plant Purchased, and concurrently credited to Account 250.1, Reserve for Depreciation of Gas Plant, Account 250.2, Reserve for Amortization and

Depletion of Producing Natural Gas Land and Land Rights, and Account 251, Reserve for Amortization of Other Limited-Term Gas Investments, as appropriate.

(3) The amount remaining in Account 391, Gas Plant Purchased, shall then be closed to Account 100.5, Gas Plant Acquisition Adjustments.

C. A memorandum record shall be kept of the amount of contributions in aid of construction applicable to the property acquired as shown by the accounts of the previous owner.

D. When any property acquired as an operating unit or system includes duplicate or other gas plant which will be retired by the accounting utility in the reconstruction of the acquired property or its consolidation with the previously owned property, the accounting for such property shall be presented to the Commission for consideration and approval.

E. If property acquired in the purchase of an operating unit or system is in such physical condition when acquired that it is necessary substantially to rehabilitate it in order to bring the property up to the standards of the utility, the cost of such work, except replacements, shall be accounted for as a part of the purchase price of the property.

F. In connection with the acquisition of gas plant constituting an operating unit or system, the utility shall procure, if possible, all existing records relating to the property acquired, or certified copies thereof, and shall preserve such records until specifically authorized by the Commission to destroy or otherwise dispose of them.

NOTE.—In cases of mergers or consolidations occurring prior to the determination of original cost of the plant of the merging or consolidating utilities, the accounts of the constituent utilities, with the approval of the Commission, may be combined. In the event original cost has not been determined, the resulting utility shall proceed to determine such cost as outlined herein.

## 5. COMPONENTS OF CONSTRUCTION COST

The cost of construction properly includible in the gas plant accounts shall include, where applicable, the direct and overhead costs as listed and defined hereunder:

(1) "Contract work" includes amounts paid for work performed under contract by other companies, firms, or individuals, costs incident to the award of such contracts, and the inspection of such work. It does not include the cost of work performed by the utility

on the project, a part of which is performed by others under contract.

(2) "Labor" includes the pay and expenses of employees of the utility engaged on construction work, and also workmen's compensation insurance, pay roll taxes, and similar items of expense. It does not include the pay and expenses of employees which are distributed to construction through clearing accounts nor the pay and expenses included in other items hereunder.

(3) "Materials and supplies" includes the purchase price at the point of free delivery plus customs duties, excise taxes, the cost of inspection, loading and transportation, the related stores expenses, and the cost of fabricated materials from the utility's shop. In determining the cost of materials and supplies used for construction, proper allowance shall be made for unused materials and  
40 supplies, for materials recovered from temporary structures used in performing the work involved, and for discounts allowed and realized in the purchase of materials and supplies.

**NOTE A.**—The cost of individual items of equipment of small value (for example, \$10 or less) or of short life, including small portable tools and implements, shall not be charged to gas plant accounts unless the correctness of the accounting therefor is verified by current inventories. The cost may be charged to the appropriate operating expense or clearing accounts, according to the use of such items, or, if such items are consumed directly in construction work, the cost shall be included as part of the cost of the constructed unit.

**NOTE B.**—Gas owned by the utility used in well construction shall be charged thereto at the cost with an offsetting credit to Account 749, Duplicate Charges—Cr.

(4) "Transportation" includes the cost of transporting employees, materials and supplies, tools, purchased equipment, and other work equipment (when not under own power) to and from points of construction. It includes amounts paid to others as well as the cost of operating the utility's own transportation equipment. (See item 5 following.)

(5) "Special machine service" includes the cost of labor (optional), materials and supplies, depreciation, and other expenses incurred in the maintenance, operation, and use of special machines, such as steam shovels, pile drivers, derricks, ditchers, scrapers, material unloaders, and other labor-saving machines; also expenditures for rental, maintenance, and operation of machines of others. It does not include the cost of small tools and other individual items of small value or short life which are in-

cluded in the cost of materials and supplies. (See item 3, above.) When a particular construction job requires the use for an extended period of time of special machines, transportation or other equipment, the net book cost thereof, less the appraised or salvage value at time of release from the job, shall be included in the cost of construction.

(6) "Shop service" includes the proportion of the expense of the utility's shop department assignable to construction work, except that the cost of fabricated materials from the utility's shop shall be included in "materials and supplies."

(7) "Protection" includes the cost of protecting the utility's property from fire or other casualties and the cost of preventing damages to others, or to the property of others, including payments for discovery or extinguishment of fires, cost of apprehending and prosecuting incendiaries, witness fees in relation thereto, amounts paid to municipalities and others for fire protection, and other analogous items of expenditures in connection with construction work.

(8) "Injuries and damages" includes expenditures or losses in connection with construction work on account of injuries to persons and damages to the property of others; also the cost of investigation of and defense against actions for such injuries and damages. Insurance recovered or recoverable on account of compensation paid for injuries to persons incident to construction shall be credited to the account or accounts to which such compensation is charged. Insurance recovered or recoverable on account of property damages incident to construction shall be credited to the account or accounts charged with the cost of the damages.

41 (9) "Privileges and permits" includes payments for and expenses incurred in securing temporary privileges, permits, or rights in connection with construction work, such as for the use of private or public property, streets, or highways, but it does not include rents, or amounts chargeable as franchises and consents, for which see Account 362, Franchises and Consents.

(10) "Rents" includes amounts paid for the use of construction quarters and office space occupied by construction forces and amounts properly includible in construction costs for such facilities jointly used.

(11) "Engineering and supervision" includes the portion of the pay and expenses of engineers, surveyors, draftsmen, inspectors, superintendents, and their assistants applicable to construction work.



(12) "General administration capitalized" includes the portion of the pay and expenses of the general officers and administrative and general expenses applicable to construction work.

(13) "Engineering services" includes amounts paid to other companies, firms, or individuals engaged by the utility to plan, design, prepare estimates, supervise, inspect, or give general advice and assistance in connection with construction work. A copy of the agreement or arrangement under which such services are rendered shall be preserved.

(14) "Insurance" includes premiums paid or amounts provided or reserved as self-insurance for the protection against loss and damages in connection with construction, by fire or other casualty, injury to or death of persons other than employees, damages to property of others, defalcation of employees and agents, and the nonperformance of contractual obligations of others. It does not include workmen's compensation or similar insurance on employees included as "labor" in item 2, above.

(15) "Law expenditures" includes the general law expenditures incurred in connection with construction and the court and legal costs directly related thereto, other than law expenses included in protection, item 7, and in injuries and damages, item 8.

(16) "Taxes" includes taxes on physical property (including land) during the period of construction and other taxes properly includible in construction costs before the facilities become available for service.

(17) "Interest during construction" includes the net cost of borrowed funds used for construction purposes and a reasonable rate upon the utility's own funds when so used. Interest during construction shall be charged to the individual job upon which the funds are expended and shall be credited to Account 536, Interest Charged to Construction—Cr. The period for which interest may be capitalized shall be limited to the period of construction. No interest charges shall be included in these accounts upon expenditures for construction projects which have been abandoned.

NOTE.—When a part only of a plant or project is placed in operation or is completed and ready for service but the construction work as a whole is incomplete, that part of the cost of the property placed in operation, or ready for service, shall be treated as "Gas Plant in Service" and interest thereon as a charge to construction shall cease. Interest on that part of the cost of the plant which is incomplete may be continued as a charge to construction until such time as it is placed in operation or is ready for service, except as limited in items 17, above.

42 (18) "Earnings and expenses during construction" include (a) all revenues derived during the construction period from property which is included in the cost of the project under construction and (b) all expenses (except taxes) which are attributable to the revenues received.

## 6. OVERHEAD CONSTRUCTION COSTS

A. All overhead construction costs, such as engineering, supervision, general office salaries and expenses, construction engineering and supervision by others than the accounting utility, law expenses, insurance, injuries and damages, relief and pensions, taxes, and interest, shall be charged to particular jobs or units on the basis of the amounts of such overheads reasonably applicable thereto, to the end that each job or unit shall bear its equitable proportion of such costs and that the entire cost of the unit, both direct and overhead, shall be deducted from the gas plant accounts at the time the unit of property is retired.

B. The instructions contained herein shall not be interpreted as permitting the addition to gas plant accounts of arbitrary percentages or amounts to cover assumed overhead costs, but as requiring the assignment to particular jobs and accounts of actual and reasonable overhead costs.

C. The records supporting the entries for overhead construction costs shall be so kept as to show the total amount of each overhead for each year, the nature and amount of each overhead expenditure charged to each construction work order and to each gas plant account, and the bases of distribution of such costs.

## 7. LEASED PROPERTY, EXPENDITURES ON

A. Except as provided in paragraph B, following, the cost of initial improvements (including repairs, rearrangements, additions, and betterments) to property leased from others made in the course of preparing the property for service and the cost of any subsequent additions or betterments to such leased property shall be charged to the gas plant or other property account appropriate for the class of property leased. (See Account 100.1 and Operating expense instruction 5.)

B. When the initial improvements to leased property which are otherwise chargeable to gas plant or other property accounts are of relatively minor cost or short life or the lease is for a period of not more than 1 year, the cost shall be charged to the account in which the rent expense is included.

C. Provision for the retirement of improvements to leased property shall be made either through Account 251, Reserve for Amortization of Other Limited-Term Gas Investments, by concurrent charges to Account 504, Amortization of Other Limited-Term Gas Investments, or through Account 250.1, Reserve for Depreciation of Gas Plant, by concurrent charges to Account 503.1, Depreciation. The annual amortization or depreciation provision shall be determined in the following manner:

(1) If the service life of the improvements is terminated by action of the lease and not by depreciation (see definition 14), then the service value of the improvements should be spread over the life of the lease by charges to Account 504, Amortization of Other Limited-Term Gas Investments, and credits to Account 251, Reserve for Amortization of Other Limited-Term Gas Investments.

(2) If the service life is terminated not by action of the lease but by depreciation, then the service value of the improvements should be accounted for as depreciable plant (see Accounts 503.1 and 250.1).

#### 8. TEMPORARY FACILITIES

When property ordinarily having a service life of more than 1 year is installed for temporary use in gas service, it shall be accounted for in the manner prescribed for gas plant in service.

#### 9. LAND AND LAND RIGHTS

A. "Land and land rights" means land owned in fee by the utility and rights, interests, and privileges held by the utility in land owned by others, such as leaseholds, easements, natural gas rights, rights-of-way, and other like interests in land.

B. The accounts for land and land rights shall include the first cost, including the amounts of mortgages or other liens assumed, but not rents payable periodically with respect to such rights.

C. Where special assessments for public improvements provide for deferred payments, the full amount of the assessments shall be charged to the appropriate land account and the unpaid balance shall be carried in an appropriate liability account. Interest on unpaid balances shall be charged to the appropriate interest account. If any part of the cost of public improvements is included in the general tax levy, the amount thereof shall be charged to the appropriate tax account; otherwise the cost of public improvements, including cost of sidewalks and curbs constructed by the

utility on public streets, should be charged to the accounts for land and land rights.

D. The net profit from the sale of timber, cordwood, or other property acquired with rights-of-way or other lands shall be credited to the appropriate land and land rights account. Where land is held for a considerable period of time and timber on the land at the time of purchase increases in value, the net profit (after giving effect to the cost of the timber) from the sales of timber or its products shall be credited to Account 526, Miscellaneous Nonoperating Revenues.

E. Separate entries shall be made for the acquisition, transfer, or retirement of each parcel of land, and each land right, or gas right (except rights-of-way for distribution lines) having a life of more than 1 year. A record shall be maintained showing the nature of ownership, full legal description, area, map reference, purpose for which used, city, county, and tax district in which situated, from whom purchased or to whom sold, payment given or received, other costs, contract date and number, date of recording of deed, and book and page of record. Entries transferring or retiring land or land rights shall refer to the original entry recording its acquisition. A parcel of land acquired and carried on the books as a unit is not required to be subdivided with transfers to other land accounts merely because of the erection thereon of an incidental structure to be used in gas operations but for a purpose differing from that for which the land is chiefly employed; for example, a small general storehouse on production plant land.

44 F. Any difference between the amount received from the sale of land or land rights, less agents' commissions and other costs incident to the sale, and the book cost of such land or rights, shall be charged to Account 414, Miscellaneous Debits to Surplus, or credited to Account 401, Miscellaneous Credits to Surplus, as appropriate, unless a reserve therefor has been authorized and provided. Appropriate adjustments of the accounts shall be made with respect to any structures or improvements located on land sold.

G. Entries to the gas plant accounts for limited-term interests in land (except rights-of-way for distribution lines) shall make specific reference to the lease, contract, or arrangement under which each interest is held or used, together with a concise statement of the terms of the lease, contract, or arrangement.

**H.** The cost of buildings and other improvements (other than public improvements) shall not be included in the land accounts. If at the time of acquisition of an interest in land such interest extends to buildings or other improvements (other than public improvements), which are then devoted to gas operations the land and improvements shall be separately appraised and the cost allocated to land and buildings or improvements on the basis of the appraisals. If the improvements are removed or wrecked without being used in operations, the cost thereof and the cost of removing or wrecking shall be charged and the salvage credited to the account in which the cost of the land is recorded.

**I.** The cost of land and land rights acquired in excess of that used in gas operations shall be included in Account 110, Other Physical Property, or Account 100.4 Gas Plant Held for Future Use, as appropriate. Regarding land and land rights held for the production of natural gas: Account 100.1, Gas Plant in Service, shall include (1) the cost of lands owned in fee upon which producing natural gas wells are located or lands owned in fee which are being drained through the operation by the utility of wells on other land, and (2) the first cost of lands held under lease upon which the utility pays royalties for the natural gas obtained therefrom. The cost of all other land and land rights held for the production of natural gas under a definite plan for such use shall be included in Account 100.4, Gas Plant Held for Future Use.

**NOTE**—In addition to the accounting records prescribed herein, supplemental records of land and land rights held for future use shall be kept in such manner as to permit the segregation within a reasonable time of the land and land rights constituting (1) productive but nonproducing fields, and (2) unproven or undeveloped fields, and to show the following data with respect to each natural gas lease, regardless of the accounting treatment accorded the lease costs: (a) name of lessor, (b) location of leasehold and number or other identification assigned thereto, (c) date and period of lease agreement, (d) first cost of lease including details of the elements of such cost, (e) annual rental provisions, (f) date and cost of drilling, (g) date gas determined to exist, (h) date of completion of first well drilled by the utility in each pool of gas, (i) royalty provisions, (j) amortization and depletion provisions, and (k) date of abandonment of lease.

**J.** When the purchase of land for gas operations requires the purchase of land not used for such purposes, the charge to the specific land account shall be based upon the estimated cost of only that portion which is used for gas operations. The cost of the remaining land shall be included in Account 100.4, Gas Plant

Held for Future Use, or Account 110, Other Physical Property, as appropriate.

45 **K.** Provision shall be made for amortizing amounts carried in the accounts for limited-term interests in land. The amortization of limited-term interests in land shall be accomplished in such manner as to apportion equitably the cost of each interest over the life thereof and to produce a charge to operating expenses, for each accounting period, of the amount properly chargeable thereto for such period. For the purposes of amortization of natural gas rights, separate interests in land which constitute an interest in one pool of gas may be grouped to form a depletion unit. (See Account 250.2, Reserve for Amortization and Depletion of Producing Natural Gas Land and Land Rights, Account 250.3, Reserve for Abandoned Leases, and Account 251, Reserve for Amortization of Other Limited-Term Gas Investments; also Account 503.2, Amortization and Depletion of Producing Natural Gas Land and Land Rights, Account 504, Amortization of Other Limited-Term Gas Investments, and Account 512, Abandoned Leases.)

**L.** The items of cost to be included in the accounts for land and land rights are as follows:

- Bulkheads, buried, not requiring maintenance or replacement.
- Cost, first, of acquisition including mortgages and other liens assumed (but not subsequent interest thereon).
- Clearing (first cost) the land of brush, trees, and debris.
- Condemnation proceedings, including court and counsel costs.
- Consents and abutting damages, payment for.
- Conveyancers' and notaries' fees.
- Fees, commissions, and salaries to brokers, agents, and others in connection with the acquisition of the land or land rights.
- Grading the land, except when directly occasioned by the building of a structure.
- Leases, cost of voiding upon purchase to secure possession of land.
- Removing, relocating, or reconstructing property of others, such as buildings, highways, railroads, bridges, cemeteries, churches, telephone and power lines, etc., in order to acquire quiet possession.
- Retaining walls unless identified with structures.
- Special assessments levied by public authorities for public improvements on the basis of benefits for new roads, new bridges, new sewers, new curbing, new pavements, and other public improvements, but not taxes levied to provide for the maintenance of such improvements.
- Surveys in connection with the acquisition.
- Taxes, assumed, accrued to date of transfer of title.
- Title, examining, clearing, insuring, and registering in connection with the acquisition and defending against claims relating to the period prior to the acquisition.



## 10. STRUCTURES AND IMPROVEMENTS

A. "Structures and improvements" means all permanent buildings and structures to house, support, or safeguard property or persons, and improvements of a permanent character other than public improvements on or to land.

B. "Buildings" means permanent structures to house, support, or safeguard property or persons, including all fixtures permanently attached to and made a part of buildings and which cannot be removed therefrom without cutting into the walls, ceilings, or floors, or without in some way impairing the buildings.

C. "Improvements" means permanent improvements (other than buildings) to land.

46 D. Items of cost:

Architects' plans.

Ash pits (when located within the building proper).

Athletic field structures and improvements.

Bollers, furnaces, piping, wiring, fixtures, and machinery for heating, lighting, signaling, ventilating, and plumbing.

Bulkheads, including dredging, riprap fill, piling, decking, concrete, fenders, etc., when exposed and subject to maintenance and replacement.

Chimneys.

Coal bins and bunkers.

Commissions and fees to brokers, agents, architects, and others.

Conduit (not to be removed) with its contents.

Damages to abutting property during construction.

Docks.

Door checks and door stops.

Drainage and sewerage systems.

Elevators, cranes, hoists, etc., and the machinery for operating them.

Excavation, including shoring, bracing, bridging, refill, and disposal of excess excavated material.

Fences and fence curbs (not including protective fences isolating individual items of equipment, which should be charged to the appropriate equipment account).

Fire protection systems when forming a part of a structure.

Floor covering (permanently attached).

Foundations and piers for machinery, constructed as a permanent part of a building or other item listed herein.

Grading when directly occasioned by the building of a structure.

Holders—relief.

Holders—waterless, including steel structure, piston elevators, cost of first tar seal, tar apparatus and storage tanks, stairways, etc.

Holders—waterseal, including tank construction, water, holder lifts, framework, stairways, and heating equipment.

Inlet and outlet lines to holders and storage tanks, including inlet and outlet valve pits and drip pumps.

- Intrasite communication system, poles, pole fixtures, wires, and cables.
- Landscaping, lawns, shrubbery, etc.
- Leases, voiding upon purchase, to secure possession of structures.
- Leased property, expenditures on.
- Lighting fixtures and outside lighting systems.
- Natural gas wells used solely for storage of gas.
- Painting, first.
- Partitions, including movable.
- Permits and privileges.
- Platforms, railings, and gratings, when constructed as a part of a structure.
- Power boards for services to a building.
- Refrigerating systems for general use.
- Retaining walls, except when identified with land.
- Roadways, railroads, bridges, and trestles intrasite, except railroads provided for, in equipment accounts.
- Scales, connected to and forming a part of a structure.
- Screens.
- Sewer systems, for general use.
- Sidewalks, curbs, and streets constructed by the utility, except sidewalks and curbs on public streets.
- Sprinkling systems.
- Stacks—brick, steel, or concrete, when set on foundation forming part of general foundation and steelwork of a building.
- Storage facilities constituting a part of a building.
- Storm doors and windows.
- Subways, areaways, and tunnels, directly connected to and forming part of a structure.
- Tanks constructed as part of a building or as a distinct structural unit.
- Tunnels, intake and discharge, when constructed as part of a structure, and those constructed to house mains.
- Vaults constructed as part of a building.
- 47 Water-front improvements.
- Water-supply piping, hydrants, and wells.
- Water-supply system for a building or general company purposes.
- Wharves.
- Window shades and ventilators.
- Yard-drainage system.
- Yard-lighting system.
- Yard surfacing, gravel, concrete, or oil.

**NOTE**—The cost of disposing of material excavated in connection with construction shall be considered as a part of the cost of such work, except as follows: (a) When such material is used for filling, the cost of loading, hauling, and dumping shall be equitably apportioned between the work in connection with which the removal occurs and the work in connection with which the material is used; (b) when such material is sold, the net amount realized from such sales shall be credited to the work in connection with which the removal occurs. If the amount realized from the sale of excavated materials exceeds the removal costs and the costs in connection with the sale, the excess shall be credited to the land account in which the site is carried.

**E. Items not included in buildings:**

(1) Do not include in the cost of buildings, lighting, heating, or other fixtures temporarily attached for purposes of display or demonstration.

(2) The cost of specially provided foundations not intended to outlast the machinery or apparatus for which provided, and the cost of angle irons, castings, etc., installed at the base of an item of equipment, shall be charged to the same account as the cost of the machinery, apparatus, or equipment.

(3) When furnaces and boilers are used primarily for furnishing steam for some particular department and only incidentally for furnishing steam for heating a building and operating the equipment therein, the entire cost of such furnaces and boilers shall be charged to the appropriate plant account, and no part to the building account.

(4) Minor buildings and structures may be considered a part of the facility in connection with which constructed or operated and the cost thereof accounted for accordingly when the nature of the structure and facility indicates the correctness of such accounting.

## 11. EQUIPMENT

A. "Equipment," as used in this system of accounts, means all tangible utility plant, other than land and structures as herein defined.

B. The cost of equipment, unless otherwise indicated in the text of an equipment account, includes, in addition to the actual price thereof, sales taxes, investigation and inspection expenses necessary to such purchase, expenses of transportation when borne by the utility, labor employed, materials and supplies consumed, and expenses incurred by the utility in unloading and placing the equipment in readiness to operate.

C. Exclude from equipment accounts hand and other portable tools which are likely to be lost or stolen or which have relatively small value (\$10 or less) or short life, unless the correctness of the accounting therefor is verified by current inventories. Special tools acquired and included in the purchase price of equipment shall be included in the appropriate plant account. Portable drills and similar tool equipment when used in connection with the operation and maintenance of a particular plant or department, such

as production, transmission, distribution, etc., or in "stores," shall be charged to the plant account appropriate for their use.

48. D. The equipment accounts shall include angle irons and similar items which are installed at the base of an item of equipment, but piers and foundations which are designed to be as permanent as the buildings which house the equipment, or which are constructed as a part of the building, and which cannot be removed without cutting into the floors or the walls of the building, shall be included in the building accounts.

E. The equipment accounts shall include all the necessary costs of testing or running a plant or part thereof during an experimental or test period prior to becoming available for service. The accounting utility shall furnish the Commission with full particulars of and justification for any test or experimental run extending beyond a period of 30 days.

F. The cost of efficiency or other tests made subsequent to the date equipment becomes available for service shall be charged to the appropriate expense accounts, except that tests to determine whether equipment meets the specifications and requirements as to efficiency, performance, etc., guaranteed by manufacturers, made after operations have commenced and within the period specified in the agreement or contract of purchase, may be charged to the appropriate gas plant account.

## 12. ADDITIONS AND RETIREMENTS OF GAS PLANT

A. For the purpose of avoiding undue refinement in accounting for additions to and retirements and replacements of gas plant, all property shall be considered as consisting of (1) retirement units and (2) minor items of property.

B. *Retirement units.*—Each utility shall adopt the List of Retirement Units contained in Appendix I of this system of accounts for use in accounting for additions to and retirements and replacements of gas plant.

(1) When a retirement unit is added to gas plant, the cost thereof shall be added to the appropriate gas plant account, except that when retirement units are acquired in the acquisition of any gas plant constituting an operating system, they shall be accounted for as provided in Gas plant instruction 4.

(2) When a retirement unit is retired from gas plant, with or without replacement, the book cost thereof shall be credited to

the gas plant account in which it is included, determined in the manner set forth in paragraph D, below. If the retirement unit is of a depreciable class, the book cost of the unit retired and credited to gas plant shall be charged to the depreciation reserve provided for such property. (See par. G, below, and Gas plant instruction 13.)

C. *Minor items of property.*—(1) When a minor item of property which did not previously exist is added to plant, the cost thereof shall be accounted for in the same manner as for the addition of a retirement unit, as set forth in paragraph B(1), above, if a substantial addition results, otherwise the charge shall be to the appropriate operating expense account.

(2) When a minor item of property is retired and not replaced, the book cost thereof shall be credited to the gas plant account in which it is included; and, in the event the minor item is a part of depreciable plant, the depreciation reserve shall be charged with the book cost and cost of removal and credited with 49 the salvage. If, however, the book cost of the minor item retired and not replaced has been or will be accounted for by its inclusion in the retirement unit of which it is a part when such unit is retired, no separate credit to the property account is required, when such minor item is retired.

(3) When a minor item of depreciable property is replaced independently of the retirement unit of which it is a part, the cost of replacement shall be charged to the maintenance account appropriate for the item, except that if the replacement effects a substantial betterment (the primary aim of which is to make the property affected more useful, more efficient, of greater durability, or of greater capacity), the excess cost of the replacement over the estimated cost at current prices of replacing without betterment shall be charged to the appropriate gas plant account.

D. *Determination of book cost.*—The book cost of gas plant retired shall be the amount at which such property is included in the gas plant accounts, including all components of construction costs. The book cost shall be determined from the utility's records and if this cannot be done, it shall be estimated. When it is impracticable to determine the book cost of each item, due to the relatively large number or small cost thereof, the average book cost of the items, with due allowance for any differences in size and character, shall be used as the book cost of the items retired.

E. *Land retired.*—The book cost of land retired shall be credited to the appropriate land account. If the land is sold, the difference



Between the book cost (less any reserve therefor which has been authorized and provided) and the sale price of the land (less commissions and other expenses of making the sale) shall be credited to Account 401, Miscellaneous Credits to Surplus, or debited to Account 414, Miscellaneous Debits to Surplus, as appropriate. If the land is not used in gas service but is retained by the utility, the book cost shall be charged to Account 100.4, Gas Plant Held for Future Use, or Account 110, Other Physical Property, as appropriate.

**F. Gas plant sold.**—When gas plant constituting an operating unit or system is sold, conveyed, or transferred to another by sale, merger, consolidation, or otherwise, the book cost of the property sold or transferred to another shall be credited to the appropriate gas plant accounts, including amounts carried in Account 100.5, Gas Plant Acquisition Adjustments, and the amounts (estimated if not known) carried with respect thereto in the depreciation and amortization reserve accounts and in Account 241, Customers' Advances for Construction, and Account 265, Contributions in Aid of Construction, shall be charged to such reserves and accounts. Unless otherwise ordered by the Commission, the difference, if any, between (a) the net amount of debits and credits and (b) the consideration received for the property (less commissions and other expenses of making the sale) shall be included in Account 414, Miscellaneous Debits to Surplus, or Account 401, Miscellaneous Credits to Surplus, as appropriate. (See Account 392, Gas Plant Sold.)

**G.** The service value of gas plant retired, which is subject to charges for depreciation, shall be charged in its entirety to Account 250.1, Reserve for Depreciation of Gas Plant. Any amounts which by approval or order of the Commission are charged to Account 141, Extraordinary Property Losses, shall be credited to Account 250.1, Reserve for Depreciation of Gas Plant.

50 **H.** The accounting for the retirement of amounts included in Account 302, Franchises and Consents, and Accounts 303, Miscellaneous Intangible Plant, and the items of limited-term interests in land included in the accounts for land and land rights, shall be as provided in the text of Account 250.2, Reserve for Amortization and Depletion of Producing Natural Gas Land and Land Rights, and Account 503.2, Amortization and Depletion of Producing Natural Gas Land and Land Rights, or Account 251, Reserve for Amortization of Other Limited-Term



Gas Investments, and Account 504, Amortization of Other Limited-Term Gas Investments, as appropriate.

I. Additions and retirement of gas plant shall not be netted in the entries or in the posting of the entries.

### 13. WORK ORDER SYSTEM REQUIRED

A. All changes in gas plant (except the purchase or sale of gas plant constituting an operating unit or system) shall be recorded by means of work orders or job orders. Separate work orders may be opened for additions to and retirements of gas plant or the retirements may be included with the construction work order, provided, however, that all items relating to retirements shall be kept distinctly separate from those relating to construction, and provided further, that any maintenance costs involved in the work shall likewise be kept distinctly separate.

B. Each utility shall keep its work order system in such manner as to show the nature of each addition to or retirement of gas plant, the total cost thereof, the source or sources of costs, and the gas plant account or accounts to which charged or credited. Work orders covering jobs of short duration may be cleared monthly.

### 14. TRANSFERS OF PROPERTY

When property consisting of one or more retirement units is transferred from one account for gas plant to another or to Account 110, Other Physical Property, from one utility department to another, such as from gas to electric, from one operating division or area to another, to or from Account 100.1, Gas Plant in Service, Account 100.2, Gas Plant Leased to Others, and Account 100.4, Gas Plant Held for Future Use, the transfer shall be recorded by transferring the book cost thereof from the one account, department, or location to the other, and likewise any related amounts carried in Account 100.5, Gas Plant Acquisition Adjustments, in the depreciation reserve, and other accounts shall be transferred in accordance with the segregation of such reserves and other accounts.

**NOTE.**—Amounts included in Account 250.3, Reserve for Abandoned Leases, shall not be related to a particular lease and, therefore, shall not be transferred under the provisions of this instruction.

### 15. COMMON UTILITY PLANT

A. If the utility is engaged in more than one utility service, such as electric, gas, and street railway, and any of its utility plant is used in common for several utility services or for other purposes to such an extent and in such manner that it is impracticable to segregate it by utility services currently in the accounts, such property may, but only with the approval of the Commission, be designated and classified as "Common Utility Plant."

51. B. Utility plant designated as common utility plant shall be classified according to the detailed utility plant accounts appropriate for the property.

C. The utility shall be prepared to show at any time and to report to the Commission annually, or more frequently if required, and by utility plant accounts (301 to 392), the following:

(1) The book cost of common utility plant, (2) the allocation of such cost the respective departments using the common utility plant, and (3) the basis of the allocation.

D. The depreciation, amortization, and depletion reserves of the utility shall be so segregation as to show the amount of each reserve applicable to the property classified as common utility plant.

E. The expenses of operation, maintenance, depreciation, amortization, and depletion of common utility plant shall be recorded in the accounts prescribed herein, but designated as common expenses, and the allocation of such expenses to the departments using the common utility plant shall be supported in the same manner as the allocation of the cost of such property.

### 16. TRANSMISSION AND DISTRIBUTION PLANT

For the purpose of this system of accounts:

A. "Transmission system" means the land, structures, mains, valves, meters, boosters, regulators, tanks, compressors, and their driving units and appurtenances and other equipment used primarily for transmitting gas to a particular municipality or distribution system. The transmission system begins at the outlet side of the valve at the connection between the gathering lines or other source of supply and inlet to the transmission compressor station or other gathering terminals, and includes the equipment at such connection that is used to bring the gas to transmission pressure.

and ends at the inlet side of the equipment with meters or regulates the entry of gas into the distribution system. It does not include storage land or structures.

B. "Distribution system" means the mains which are provided primarily for distributing gas within a distribution area or for connecting two or more districts within a distribution area, together with land, structures (other than storage land and structures), valves, regulators, services, and measuring devices. The distribution system begins at the inlet side of the equipment which meters or regulates the entry of gas into the distribution system, and ends with, and includes, property on the customers' premises.

[Pages 52 to 171 omitted.]

1 **EXHIBIT NO. 76.—GAS PLANT, ADDITIONS AND RETIREMENTS, DEPRECIATION AND DEPLETION FOR THE YEAR ENDED DECEMBER 31, 1939, F. P. C. WITNESS DUNN**

**WRITTEN STATEMENT**

The Federal Power Commission, under date of October 14, 1938, issued an order of investigation into and concerning all rates, charges, classifications, rules, regulations, practices, or contracts of Hope Natural Gas Company. In accordance therewith, an examination of the accounts and records of Hope Natural Gas Company has been made and, as a result, this report on the 1939 plant additions and retirements and depreciation and depletion is submitted.

This report is a supplement to the original cost report and the depreciation and depletion report. It is submitted in order to show the effect of 1939 changes. The examiners did not make a detailed examination of the cost of additions and retirements, but did make such analysis as was necessary to group the property changes according to the depreciable and depletable classifications which are set forth in the exhibits as of December 31, 1938, and continued in this exhibit as set forth in Schedule No. 1.

**SUMMARY OF PLANT CHANGES (EXCLUSIVE OF DISTRIBUTION PLANT)**

Gas plant in service Dec. 31, 1938.....	\$51,207,620.64
1939 plant additions.....	609,548.75
1939 plant retirements.....	(808,145.67)
Gas plant in service, Dec. 31, 1939.....	51,009,023.72
Balance in depreciation and depletion reserves as at Dec. 31, 1938.....	23,501,355.80
1939 provision—add.....	1,290,825.07
1939 net charge—deduct.....	(720,013.70)
Balance in depreciation and depletion reserves as at Dec. 31, 1939.....	24,072,167.17
Net original cost at Dec. 31, 1939.....	27,026,856.55

## PLANT ADDITIONS—YEAR 1939

The gross increase in Fixed Capital assets during the year ended December 31, 1939, amounted to \$1,179,896.75 which amount is shown by accounts, by Schedule No. 6. For purposes of applying the depreciation and depletion rates the amount of \$694,469.97, representing the additions to Production, Transmission, and General Plant, excluding nondepreciable items, was used. This latter amount is shown, by accounts, in Column (b) of Schedule 1.

Beginning January 1, 1939, Hope Natural Gas Company changed an accounting policy it had followed consistently from the beginning of operations, a period of forty years, which practice concerns the capitalization of general administrative expenses. The company did not capitalize such costs prior to January 1, 1939.

During the year, 1939, an amount of \$79,438.56 was transferred from general and administrative expenses and included in plant accounts. This amount was determined by applying the percentages shown below, as described in Statement F of Exhibit 20:

Payroll.....	1.2%
Purchasing.....	3.2%
General.....	5.9%
Land.....	3.1%
Property Purchased.....	$\frac{1}{4}$ of 5.9%

The average rate for overheads on general construction expenditures, excluding leaseholds, is about 7.6% for the year 1939.

The examiners of accounts have not adjusted the general and administrative expenses capitalized in 1939.

An amount representing interest during construction has been capitalized by the company during the year 1939 and credited to an income account, Interest during Construction—Cr., in the amount of \$7,355.85. (See Schedule No. 1 of Income Statement.)

## PLANT RETIREMENTS—YEAR 1939

The retirements recorded during the year 1939 amounted to \$1,001,162.11 which amount is shown, by accounts, in Column (e) of Schedule No. 6. Certain adjustments, set forth in Column (f), have been made by the examiners to the recorded retirements for the following reasons:

1. As a result of the physical inventory and original cost studies, certain unrecorded retirements were noted as of December 31, 1938. Such retirements were given effect to in the original cost exhibits

although not entered on the books until 1939. To avoid duplication such retirements are eliminated from the 1939 figures.

2. The original cost studies corrected the book cost of many items of property. The 1939 retirements were recorded at book cost and the examiners have made the necessary corrections to retire property at the adjusted original cost.

The above-mentioned examiners' adjustments are shown in Column (f) of Schedule No. 6. For purpose of computing 1939 depreciation expense, the amount of \$807,938.44, representing retirements of Production, Transmission and General Plant, is used. This amount, by accounts, is shown in Column (c) of Schedule No. 1.

#### DEPRECIATION AND DEPLETION PROVISIONS—1939

The annual expense for depreciation and depletion, for the year 1939, has been computed in the same manner as the expense for preceding years. Data on gas produced and remaining gas reserves are taken from the Geologists' report and service lives  
4 are the same as those used in the report on Depreciation and Depletion as at December 31, 1938.

Details of depletion by production areas are shown in Schedules Nos. 2, 3, 4, and 5. Depreciation details are shown in Schedule No. 1.

#### NET CHARGES TO RESERVES—YEAR 1939

The reserve charges as shown in Column (g) of Schedule No. 1 and developed in Columns (b) and (c) of Schedule No. 1-A, are determined from two different sources, but are tied in with the net charges to the reserve as reflected by Company Statement, Schedule No. 7-A.

The Company statement sets forth the net charges to the reserve in the amounts and classifications as shown in Column (a) of Schedule No. 1-A.

Certain analyses were made, by the Federal Power Commission accountants, of the plant accounts and retirements for the property grouped under the classifications of Right-of-Way and Field Line Labor, Operated Acreage, Gas Well Construction, and Cost of Abandoning Gas Wells. The reserve charges as developed by these analyses were applied to those property classifications. The charges for Drilling and Cleaning Equipment were shown segregated in the Company statement and were so applied. The re-



maining charges to Production System Property have been allocated to the two classifications—Production System Structures, and Field Line Material and Station Equipment.

Schedule No. 7-A shows charges applicable to Gas Well Equipment in the amount of \$233,958.91 which includes the cost of abandoning gas wells. Since the cost of abandoning gas wells has been separately provided for, the cost thereof in the amount of \$75,324.15 is deducted from \$233,958.91 to arrive at the charge for Gas Well Equipment, exclusive of the cost of abandoning gas wells, namely, \$158,634.76.

The loss on property retired, as developed by the analysis of the plant accounts and retirement work orders, for the Gas Well Construction and Operated Acreage classifications is not exactly the same as shown by Schedule No. 7-A. This difference, shown in Column (d), Schedule No. 1-A, is due to the fact that certain retirement work orders, as far as the Company statement was concerned, remained in Account 144, Retirement Work in Progress.

Other charges shown by Company statement were grouped according to Transmission Plant, General Plant, and Other Property.

WASHINGTON, D. C. April 16, 1941.

EDWARD L. DUNN,  
Edward L. Dunn,

*Examiner in Charge of Field Assignment.*

Approved:

W. E. BAKER,  
W. E. Baker,  
*Chief Accountant.*

CHAS. W. SMITH,  
Chas. W. Smith,

*Chief, Bureau of Accounts, Finance and Rates.*

## HOPKINS RURAL GAS CO.

## Summary of plant and depreciation and depletion reserves balances for the year ended Dec. 31, 1939

Particulars	Plant			Depreciation and depletion reserves					Net plant balances Dec. 31, 1939
	Balance Dec. 31, 1938	Year 1939		Balance Dec. 31, 1938	Provision	Charges	Balance Dec. 31, 1939		
		Additions	Retirements						
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Natural gas production plant:									
R-of-W and field line labor structures	\$4,267,884.05	\$84,712.89	\$40,273.36	\$4,312,320.58	\$2,434,126.44	\$103,157.93	\$40,006.30	\$2,437,188.07	
Field line material and station equipment	212,327.73	4,333.00	6,267.13	210,393.60	93,311.05	8,813.75	132,095.96	3,491,220.52	
Operated acreage	7,034,169.06	82,994.07	129,311.41	7,887,851.72	3,845,567.26	175,624.42			
Gas well equipment	1,599,004.86		28,813.63	1,570,191.83	970,828.83	396,772.47	28,813.03	978,798.27	
Gas well construction	7,610,549.75	76,965.30	219,396.61	7,468,118.73	4,382,702.79	188,482.85	158,634.76	4,412,750.88	
Cost of abandoning gas wells	4,489,177.71	101,169.66	105,008.05	4,688,880.32	1,190,139.63	182,755.43	105,008.05	1,177,811.01	
Drilling and cleaning equipment	595,692.71	84,223.81	53,902.55	628,013.96	2,107,291.03	69,813.58	77,324.15	2,101,750.46	
Total natural gas production plant	26,909,062.87	436,309.02	583,052.15	26,162,379.71	15,285,615.78	783,795.21	575,098.06	15,494,342.93	10,698,046.81
Transmission plant:									
Mains material, labor, and equipment	14,561,948.87	122,767.22	52,886.65	14,631,829.54	4,179,639.53	227,711.47			
Structures	1,456,805.28	4,215.70	2,139.89	1,458,921.09	405,831.25	36,447.33			
Compressor station equipment	7,683,671.99	46,949.83	93,283.52	7,637,298.30	3,103,818.57	196,108.42			
Total transmission plant	23,702,426.14	173,892.85	148,300.06	23,728,018.93	7,779,289.75	460,267.22	496,538.03	8,143,018.94	15,585,029.99

HOPE NATURAL GAS CO.—Continued  
*Summary of plant and depreciation and depletion reserves balances for the year ended Dec. 31, 1939—Continued*

Particulars	Plant		Depreciation and depletion reserves						Net plant balances Dec. 31, 1939			
	Balance Dec. 31, 1938	Additions	Year 1939		Balance Dec. 31, 1939	Balance Dec. 31, 1938	Year 1939			Balance Dec. 31, 1939		
			Retirements	(d)			(e)	(f)			Provision	Charges
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)			
General plant:												
Structures and improvements	225,887.78	4,476.78	11,762.16	218,602.40	66,712.87	4,822.72						
Office furniture and equipment	178,083.34	11,925.95	4,001.00	186,518.29	63,483.27	7,304.04						
Other equipment	115,988.50	9,276.59	14,208.61	111,056.48	22,371.23	4,052.74						
Communication equipment	288,975.74	8,872.60	10,914.72	246,933.62	178,731.69	9,546.27						
Transportation equipment	142,314.49	49,656.18	35,579.74	156,390.93	105,151.31	21,036.87						
Total general plant	911,849.85	84,208.10	76,556.23	919,501.72	436,450.27	46,762.64	48,407.61	434,805.30	484,696.42			
Subtotal	50,923,398.86	694,469.97	807,938.44	50,809,930.39	23,501,355.80	1,260,825.07	730,013.70	24,072,167.17	26,737,764.42			
Nondepreciable plant:												
Natural gas producing lands	3,319.84			3,319.84								
Other land and land rights	21,008.52		207.23	20,401.29								
Transmission land	162,912.21	900.00		163,812.21								
General plant land and land rights	96,961.21	4,178.78		101,159.99								
Total nondepreciable plant	284,221.78	5,078.78	207.23	289,063.33					289,063.33			
Total gas plant in service (exclusive of distribution plant)	51,207,620.64	699,548.75	808,145.67	51,099,023.72	23,501,355.80	1,260,825.07	730,013.70	24,072,167.17	27,026,856.55			

[Pages 7 to 17 omitted.]

Howe, Nathan, Inc. Company

Summary of depreciation and depletion reserves for the year 1939—per book

Reserve accounts	Reserve bal- ance Jan. 1, 1939	Additions			Deductions			Balance before mor- get Dec. 31, 1939	Acquired from Reserve Gas Co.	Balance Dec. 31, 1939
		Charged to expense	Other credits	Total	For prop- erty retired	Other debts	Total			
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
250.1 Depreciation of utility plant	\$39,912,414.89	\$1,200,000.00	\$43,677.45	\$1,243,677.45	\$721,300.58	\$489,000.00	\$1,210,300.58	\$39,945,701.76	\$3,971,346.43	\$43,917,138.19
250.2 Amortization and depletion of producing natural gas lands and land rights	489,034.45	18,400.00	189,000.00	597,400.00	23,214.26		23,214.26	973,230.22	816,382.44	1,789,602.66
250.3 Abandoned leases	231,256.52				23,067.31		23,067.31	208,252.21	31,911.39	240,143.60
251 Amortization of other limited term utility investment	813.44	6,399.47		6,399.47				7,182.91		7,182.91
253 Amortization and deprecia- tion of other property	80,456.25	6,631.20		6,631.20				87,087.45		87,087.45
258.6 Other reserves—Clarksburg Light & Heat Company	4,431.90	4,740.72		4,740.72				50,172.62		50,172.62
Total	40,736,450.48	1,236,141.39	\$32,677.45	1,268,818.84	767,582.15	489,000.00	1,256,582.15	41,271,687.17	4,819,640.26	46,091,327.43

\* Estimated on basis of Blackex depreciation rates.

is charged to clearing necessities.

<sup>2</sup> No depletion was set up for operated acreage prior to 1921, therefore the reserve is understated. The reserve for depreciation of utility plant (account 250.1) is thought to be overstated. To adjust the reserve account 250.2, a transfer of \$480,000 was made to that account from account 250.1.

[Page 19 omitted.]

18 **EXHIBIT NO. 117.—UNIFORM CLASSIFICATION OF ACCOUNTS FOR NATURAL GAS COMPANIES PRESCRIBED BY THE PUBLIC SERVICE COMMISSION OF WEST VIRGINIA (1923)**

[Pages 1-17 omitted]

**I. FIXED CAPITAL ACCOUNTS**

**100. Fixed Capital Installed Prior to January 1, 1923.**

Charge to this account the book value, at the close of December 31, 1922, of all fixed capital owned and used by the utility in the conduct of its natural gas operations. No charge shall be made to this account for any fixed capital acquired after December 31, 1922.

When any item of fixed capital carried in this account is retired from service, credit to this account the amount at which it is carried herein, charge to the appropriate sub-account of "121. Materials and Supplies" account any salvage recovered from it; charge to "183. Depreciation Of Structures And Equipment Reserve" account the amount reserved from January 1, 1923, to provide for the loss suffered by it since that date from wear, tear, obsolescence, etc.; charge to the reserve account provided prior to January 1, 1923, the accumulated amount reserved at the close of December 31, 1922, to provide for like loss suffered by it; and charge either to "709. Amortization Unprovided For Elsewhere" or to "131. Property Abandoned" account, as the Public Service Commission may direct, the net loss sustained on it.

The charge to "131. Property Abandoned" account shall be made on the basis of the money cost of such fixed capital less the amount of salvage recovered therefrom and the amount reserved for depreciation thereof.

Any excess of the amount at which such retired fixed capital is carried in this account over its money cost shall be charged to "709. Amortization Unprovided For Elsewhere" account.

This account is a controlling account of the various accounts that were combined on January 1, 1923, to make it.

[Pages 19 to 144 omitted.]





**EXHIBIT NO. 98. PRINCIPAL PROPERTY PURCHASES, 1898-1938, AND HOW THESE PURCHASES  
WERE RECORDED IN THE COMPANY'S PLANT ACCOUNTS AT THE TIME OF PURCHASE,  
HOPE WITNESS ANTONELLI**

**PURCHASES FROM OTHER UTILITIES**

Year	Vendor	Voucher No.	Purchase price	Property recorded in Hope's plant account as follows
(1)	(2)	(3)	(4)	(5)
1902	Fluzy Meadow Gas Company	M-41	\$1,174,010.00	At purchase price.
1908	Lawrence Natural Gas Company	M-72	26,501.98	At purchase price (less \$9,116.41 charged to expense).
1909	Columbia Gas Company	C-232	50,000.00	At purchase price (less \$199.88 charged to expense).
	Greenwood Gas Company	G-33	7,500.00	At purchase price (less \$855.67 charged to expense).
1910	Mountain State Gas Company	D-302	663,623.98	At vendor's book cost of \$1,298,611.31. The difference between such cost and the purchase price (less \$4,181.37 charged to expense) was added to Hope's depreciation reserve.
	Home Gas Company	J-371	75,000.00	At purchase price (less \$1,886.79 charged to expense).
	Flint Natural Gas Company	M-561	8,000.00	At purchase price (less \$6,124.65 principally for well drilling charged to expense).
	Fayette County Gas Company	G-353	693,000.00	At purchase price (less \$130,586.75 principally for well drilling charged to expense).
1911	Burt Oil Company	G-429	7,500.00	At purchase price.
	Light Fuel & Power Company	M-413	16,038.88	At purchase price.
1912	Manufacturers Light & Heat Company	H-411	L 650,000.00	At purchase price (less \$1,493.16 charged to expense).
1917	The Mt. Clare Gas Company	L-109	17,500.00	At purchase price.
	Rural Gas Company	M-398	45,000.00	At purchase price (less \$8,386.61 charged to expense).
1921	Pittsburgh & West Virginia Gas Company	C-83 F-169 J-8	9,300.00	At purchase price (less \$44.98 charged to expense).
1925	Keeney Oil, Natural Gas & Fuel Company	K-30	112,000.00	At purchase price.
1928	Light, Fuel & Power Company (Wellwood)	C-236	90,000.00	At purchase price.
1929	Cheneyville Natural Gas Company	E-173	17,304.13	At purchase price.
	Godfrey, L. Cabot, Inc.	M-331	700,000.00	At purchase price.

**1 EXHIBIT NO. 98.—PRINCIPAL PROPERTY PURCHASES, 1898-1938, AND HOW THESE PURCHASES WERE RECORDED IN THE COMPANY'S PLANT ACCOUNTS AT THE TIME OF PURCHASE.  
HOPE WITNESS ANTONELLI—Continued**

**PURCHASES FROM OTHER UTILITIES—Continued**

Year	Vendor	Voucher No.	Purchase price	Property recorded in Hope's plant account as follows
(1)	(2)	(3)	(4)	(5)
1929	Clarksburg Light & Heat Company	F-280	\$1,369,310.67	At vendor's book cost of \$2,233,252.76. The difference between such cost and the purchase price was added to Hope's depreciation reserve.
1932	Pittsburgh & West Virginia Gas Company	B-12	17,000.00	At purchase price.
1934	Wak Company	M-250	25,000.00	At purchase price.
1936	Pittsburgh & West Virginia Gas Company	G-239	23,048.54	At purchase price.
1937	Cumberland & Allegheny Gas Company	K-32	8,217.78	At purchase price.
1938	Pittsburgh & West Virginia Gas Company	F-42	41,280.77	At purchase price.

**PURCHASES FROM NONUTILITIES**

1899	South Penn Oil Company	M-12	95,678.90	At purchase price.
1902	South Penn Oil Company	M-48	505,500.58	At purchase price (less \$136,984.57 for well drilling charged to expense).
	The Carter Oil Company	M-262	330,399.03	At purchase price (less \$70,346.61 for well drilling charged to expense).
1906	South Penn Oil Company	J-159	16,722.66	At purchase price (less \$7,655.30 charged to expense).
1911	Freehold Oil & Gas Company	C-327	500,000.00	At purchase price (less \$114.04 charged to expense).
	R. G. Gillispie	C-288	8,250.00	At purchase price (less \$3,908.28 charged to expense).
1912	West Virginia—Ohio Gas Fuel Company	M-265	11,842.57	At purchase price.
	H. B. Hogg	F-230	7,500.00	At purchase price.
1914	Ernest Hunton	G-200	15,000.00	At purchase price.
1916	Morgansville Oil & Gas Company	A-330	10,000.00	At purchase price (less \$31.56 charged to expense).
	Ross, Davidson & Childster	K-180	40,000.00	At purchase price (less \$5.24 charged to expense).
1917	Hill Oil & Gas Company	H-354	10,000.00	At purchase price (less \$0.83 charged to expense).
	Coke Oil Company	J-112	93,848.46	At purchase price (less \$2,752.16 charged to expense).
	Hill Oil & Gas Company	L-115	20,000.00	At purchase price (less \$500.08 charged to expense).
	Mrs. Louise Hunt Reed, Adm'x	M-21	92,500.00	At purchase price.

1918	Marysh & Watkins	M-152	9,201.61	At purchase price (less \$250.00 charged to expense).
	G. H. & J. E. Trainer	L-181	17,500.00	At purchase price (less \$341.48 charged to expense).
	M. G. Sperry	L-147	16,000.00	At purchase price (less \$2.73 charged to expense).
	E. A. Park	H-131	10,000.00	At purchase price.
	J. H. Edwards	J-339	14,500.00	At purchase price.
	Elk Fuel Company	D-128	9,000.00	At purchase price (less \$2.92 charged to expense).
	Illmer Oil & Gas Company	D-143	10,000.00	At purchase price (less \$3.88 charged to expense).
	Clarkshurg Manufacturing Gas Company	A-122	16,000.00	At purchase price (less \$5.46 charged to expense).
	Granville Kester	A-151	9,000.00	At purchase price (less \$50.32 charged to expense).
	C. F. Moran	B-46	7,800.00	At purchase price.
1919	Marion Oil Company	M-217	7,257.13	At purchase price (less \$13.28 charged to expense).
	Kanawha Oil Company	D-117	10,000.00	At purchase price (less \$6.42 charged to expense).
1920	Grude Oil Company	F-130	42,410.41	At purchase price (less \$4,433.26 for well drilling and \$5,513.63 for P. & L. Suspense charged to Expense).
1925	City of Parkersburg	M-277	10,000.00	At purchase price.
	Eastern Carbon Black Company	M-326	50,000.00	At purchase price.
	United Carbon Company	M-326	12,000.00	At purchase price.
	Sheldon Gasoline Company	M-240	76,000.00	At purchase price.
1926	M. G. Sperry	J-45	9,000.00	At purchase price.
	Carter Oil Company	C-294	1,626,805.16	At vendor's book cost of \$2,253,214.19. The difference between such cost and the purchase price was added to Hope's depreciation reserve.
1927	Grasselli Chemical Company	A-257	800,000.00	At purchase price.
1929	Oakland Oil & Gas Company	K-54	32,500.00	At purchase price.
	Norwood Glass Company	J-158	7,500.00	At purchase price.
1930	Anderson & Company—Worthy Marsh and J. W. Woodell	H-243	10,000.00	At purchase price.
	Thomas A. Whelan	L-194	30,000.00	At purchase price.
1931	Cartegrie Natural Gas Company	G-226	13,627.19	At purchase price (less \$6,470.41 for well drilling charged to expense).
1932	Midland Natural Gas Company	M-253	200,000.00	At purchase price.
1934	Midland Natural Gas Company	M-250	8,500.00	At purchase price.
	Godfrey L. Cabot, Inc.	K-171	52,000.00	At purchase price.
	Hazel-Atlas Glass Company	M-288	12,750.00	At purchase price.
1936	H. F. McCue	G-185	25,987.00	At purchase price.
1938	Jacobs Property	M-229	75,000.00	At purchase price.
	Hamilton Gas Corporation			

4     **EXHIBIT NO. 73.—COMPARISON OF REPRODUCTION COST  
NEW OF LINE PIPE, AS OF DECEMBER 31, 1938, IN-  
CLUDED IN HOPE NATURAL GAS COMPANY'S EXHIBIT  
16D, WITH ACTUAL LINE PIPE COSTS PREVAILING  
DURING THE YEAR 1939, F. P. C. WITNESS BODNER**

[Pages 1 to 3 omitted]

**WRITTEN STATEMENT**

Hope Natural Gas Company's Exhibit 16-D, pages 259-268, presents an estimate of the reproduction cost new of Account 353, Mains of Hope Natural Gas Company, as of December 31, 1938.

**PIPE COSTS**

Exhibit 16-A, page 22, and the underlying working papers relating to the development of the unit costs for pipe lines, show that the prices for line pipe (and casing used as line pipe) contained in Exhibit 16-D, page 261, are based on manufacturers' quoted prices as of December 31, 1938, less ten percent large users' discount less two percent cash discount, with an additional deduction of ten percent of the net discounted price as an allowance obtainable on large tonnage purchases. (See also T. p. 738.)

The records of Hope Natural Gas Company (which are substantially in agreement with pipe quantities given in Exhibit 16-D, page 261) indicate that there are approximately 98,500 tons of plain-end steel lapweld line pipe and casing in transmission pipe lines of the company as of December 31, 1938 (exclusive of line pipe and casing used as protective casing).

5     Pricing of a large tonnage of steel pipe such as in the

Hope Natural Gas Company system on a reproduction cost new basis involves the determination of prevailing prices for large quantity purchases of pipe. In view of this, the pipe costs experienced by natural gas companies that had large pipeline construction activity were used as the basis for this exhibit.

During the year 1939 major gas pipeline projects were constructed by a number of natural gas companies. Several of these companies have submitted to the Commission, upon request, com-

plete data concerning the quantity and type of pipe purchased and the prices paid therefor. Copies of purchase orders and copies of typical invoices for steel line pipe purchased for major gas pipeline construction during the year 1939 were furnished by Northern Natural Gas Company, United Gas Pipe Line Company, El Paso Natural Gas Company, Michigan Gas Transportation Corporation; and a sworn statement of transmission line costs was filed by Louisiana-Nevada Transit Company. These data are available in the working papers underlying this exhibit.

The information furnished by these five natural gas companies for pipe sizes 85 $\frac{1}{2}$ " O. D. to 24" O. D. was analyzed and summarized. The purchases so summarized covered more than 625 miles of line pipe, with a total weight of approximately 64,000 tons, and a cost of approximately \$2,750,000. Practically all this pipe was double random lengths varying between 30 to 49 feet per joint. All of this pipe was either seamless or electric-weld line pipe and the prices were higher than the price of new lapweld pipe. Lapweld pipe has been used in practically all of the transmission pipelines of the Hope Natural Gas Company system.

The pipe information compiled on the 1939 purchases made by the five companies was grouped on a weighted average basis into the following classifications:

1. Pipe with a diameter of 103 $\frac{1}{4}$ " O. D. to 24" O. D.
2. Pipe with a diameter of 85 $\frac{1}{2}$ " O. D.

The first classification is based on the fact that United Gas Pipe Line Company purchased approximately 21,500 tons of seamless steel pipe, in sizes varying from 103 $\frac{1}{4}$ " O. D. to 22" O. D. at a single price of \$43.00 per ton at Lorain, Ohio, at the time it built its Monroe-Jackson line.

The weighted average price of the approximately 57,200 tons of seamless and electric weld line pipe of the first classification (103 $\frac{1}{4}$ " O. D. to 24" O. D.), purchased by the companies studied is \$42.63 per ton net f. o. b. Lorain, Ohio. The weighted average price of approximately 7,200 tons of seamless and electric weld line pipe of the second classification (85 $\frac{1}{2}$ " O. D.) purchased by these companies is \$48.98 per ton net f. o. b. Lorain and Youngstown, Ohio. The prices paid for the different sizes of pipe vary from a minimum of \$39.20 per ton net f. o. b. Lorain, paid by Michigan Gas Transmission Corporation for approximately 1,750 tons of 24" O. D. pipe, to a maximum of \$64.30 per ton net f. o. b. Lorain, paid by Northern Natural Gas Company

for about 95 tons of 20" O. D. pipe. The weighted average prices developed, therefore, reflect purchases in both small and large amounts, but are influenced primarily by the large tonnage purchases.

The publication, "The Iron Age" shows that the published prices for lapweld steel pipe f. o. b. Pittsburgh District and Lorain, Ohio, mills, remained the same during the period from July 1, 1938, through December 31, 1939, and into part of 1940. According to the written statement of Mr. G. I. Rhodes (page 14 of Exhibit 16-A) the level of material prices during the winter of 1938-1939, which he used, remained substantially the same through the early part of 1940. In view of this it is considered that the prevailing actual prices for steel line pipe during the year 1939 may properly be compared with the quoted prices used in the Hope Natural Gas Company's estimate of reproduction cost new as of December 31, 1938.

This exhibit compares the net quoted prices of line pipe f. o. b. (Pittsburgh District, Youngstown or Lorain) mill as included in Hope Natural Gas Company's Exhibit 16-D, page 261, with the weighted average actual purchase price of seamless and electric-weld steel line pipe developed from the purchase records of the five natural gas companies previously mentioned.

The weighted average actual purchase prices of seamless and electric-weld steel line pipe used in compiling the data in this exhibit have not been reduced for the purposes of this exhibit to a price for lapweld steel line pipe, even though it is known that lapweld steel line pipe costs less per ton than comparable seamless and electric-weld steel line pipe. Had such price differential been considered in this exhibit, the comparison would show a greater difference between quoted and actual prices than has been reflected.

#### CONCLUSION

The Hope Company's net quoted price f. o. b. McKeesport, Youngstown, or Lorain (or other parts of Pittsburgh District), for plain end steel line pipe as of December 31, 1938, included in Exhibit 16-D, page 261, is substantially higher than the prices paid for similar steel line pipe by the five natural gas companies previously mentioned. This price difference is shown in detail on Table 1 and can be summarized as follows:



Description	Line pipe
1. Hope Company's net total quoted price f. o. b. mill McKeesport, Youngstown, or Lorain (or other parts of Pittsburgh District)-----	\$5,067.15
2. F. P. C. net total cost f. o. b. Youngstown and Lorain-----	4,297.70
3. Difference-----	1,459.45
4. Percent difference-----	34.6

Signed MICHAEL J. BODNER,  
Michael J. Bodner.

Date, March 24, 1941, Washington, D. C.

[Pages 10 to 11 omitted.]

1. **EXHIBIT NO. 73-A.—COMPARISON OF UNIT REPRODUCTION COST NEW PER FOOT FOR THE INSTALLATION (INCLUDING ALL OVERHEADS) OF LINE PIPE USED IN "REPRODUCTION COST NEW OF COMPANY PROPERTIES AS OF DECEMBER 31, 1938" WITH ACTUAL AVERAGE UNIT COSTS AS EXPERIENCED BY HOPE NATURAL GAS COMPANY AND ANOTHER COMPANY DURING YEARS 1937, 1938, 1939, AND 1940, F. P. C. WITNESS BODNER**

**WRITTEN STATEMENT**

**INTRODUCTION**

This exhibit presents a comparison of the Reproduction Cost New Unit Cost per Foot as of December 31, 1938, for the Installation of new steel line pipe (and casing used as line pipe), sizes 1 $\frac{1}{4}$ " O. D., 1 $\frac{3}{8}$ " O. D. to 16" O. D. included in Company's Exhibit 16-C, pages 107 and 108, Exhibit 16-D, pages 260 and 261, together with Exhibit 16-A, page 35 (showing the undistributed construction costs) with Actual Costs experienced by the Hope Natural Gas Company and the Manufacturers Light & Heat Company, during years 1937, 1938, 1939, and 1940.

Actual pipe line installation costs for the years 1937, 1938, 1939, and 1940 were used in this exhibit for the reason that cost of the pipeline installations just preceding and subsequent to the date of the Company's claimed valuation would be expected to compare most closely with the costs that would be expected to be incurred on date of the estimated reproduction cost valuation submitted by the Company in these proceedings.

2. The cost of installation of pipelines as referred to in this exhibit includes the total cost for all of the Components of Construction Cost for pipelines exclusive of the direct material cost of pipe, couplings, fittings, valves and such materials which remain as a part of the completed construction. Being the cost of construction; it does not contain any costs applicable to the lands or land rights utilized by the pipeline.

Company Exhibit 16A, at pages 22, 23, 24, 25, 29, 30, and 31, the transcript of the oral testimony of Mr. George I. Rhodes at

pages 635, 636, 637, 638, and 730, and the underlying working papers supporting the computation of the average unit installation cost for pipelines, indicate that such units in Exhibit 16C, at pages 107 and 108 for Account 333-1, Field Lines, Exhibit 16D, at pages 260 and 261 for Account 353, Mains, and Exhibit 16A, at page 35 showing additional expenditures related to undistributed construction costs, are not derived from actual pipeline installation costs experienced by the Hope Natural Gas Company translated to reflect costs prevailing during the period of the

3 claimed valuation. An inspection of the working papers underlying these unit costs does not disclose that such costs are derived from or may be related to the installation of any gas pipelines anywhere. Also the Company has not made available for examination any analyses reflecting actual costs of construction of any gas pipelines upon which those costs may have been based or predicated. In addition, no studies showing the derivation of the labor performances, the supervision or the overhead percentages adopted by the Company for any of the components of the installation cost of steel line pipe have been made available.

#### METHOD

The installation costs for  $1\frac{5}{16}$ " O. D.,  $1\frac{9}{32}$ " O. D. to 16" O. D. steel line pipe as contained in the 1938 "Reproduction Cost New" estimate of Mr. Rhodes for the Company have been analyzed and are presented in this exhibit in such manner that a direct comparison may be made between the unit cost included in his estimate and the actual costs experienced by the Hope Natural Gas Company and another company. For the purpose of this exhibit it has been unnecessary to consider the composition of the unit costs or relative proportions of the several components entering into the total cost determined for each size and kind of pipe, but only to segregate the material cost from the installation cost in accordance with the definition given above. Tables 3 and 4 in this exhibit explain the details of the method used in developing the total unit installation costs of steel line pipe included in Mr. Rhodes' Reproduction Cost New estimate in order to make a direct comparison of such units with actual costs.

Actual installation costs and line pipe lengths for the laying of new field and transmission pipelines has been obtained from three sources and are included in this exhibit as follows:

(a) Installation cost data for all new pipelines (15 $\frac{1}{16}$ " O. D. to 16" O. D.) installed in 1937 and 1938 (completed in 1937 and 1938) by the Hope Natural Gas Company were transcribed from the construction cost analyses of the Commission accounting examiners as determined in their study of the "Original Cost of Gas Plant as of December 31, 1938." The pipe footages for the pipelines were transcribed from the equipment cost analyses of the Commission accounting examiners as determined in the above-mentioned exhibit.

5 (b) Installation cost data for all new lines installed in 1939 and 1940 by Hope Natural Gas Company were taken from the closed construction work orders made available by the Company. All costs shown in those work orders, exclusive of direct cost of pipe, valves, fittings, and other materials remaining a part of the completed construction and classified by the Company as equipment cost, were included as installation costs. The pipe footage data were transcribed from the same closed work orders and included the pipe lengths shown for the corresponding direct material costs of pipe.

(c) Installation cost data for all new lines installed between March 1938 and December 1940 by Manufacturers Light & Heat Company in the State of West Virginia were copied from the closed construction work orders of that company made available upon request. The installation costs included all of the costs of construction, exclusive of the direct cost of the pipe, fittings, valves and other materials remaining as a part of the completed construction, and of course, exclusive of the cost of lands and rights-of-way acquired for the construction of the lines. The pipe footages were transcribed from the same closed work orders and included the pipe lengths shown for the corresponding direct material costs of pipe.

6 Some of the materials used in the construction of the pipelines analyzed for this exhibit were secondhand or reused materials recovered from previously constructed lines. Although the cost of installation of pipelines using such secondhand materials would be expected to be greater than that which would be incurred using new materials, this fact has not been reflected in this exhibit.

Replacement and line extension jobs have been omitted in this comparison study to avoid the possibility that costs relating to such construction might be distorted by reason of the character of the work.

In determining the actual costs applicable to the installation of minor footages of line pipe of diameter other than the principal diameter involved in the particular job, an amount was  
 7 segregated for such footage on the basis of the weighted average installation cost experienced in the period by each company for all of the jobs installed of that single diameter. These costs segregated for the minor footages of pipe were then grouped with those lines of the same diameter.

In determining the footage of pipeline installed, certain quantities of pipe of diameters less than  $15\frac{1}{16}$ " O. D. (used possibly as gauge lines) and minor footages of  $8\frac{1}{4}$ " and 10" pipe (probably used as protective casing) charged to the job and included in the cost of the pipeline were omitted. Consequently the actual installation costs per foot developed in this exhibit and used for purposes of comparison are higher than would have been reflected, had these additional footages been considered in arriving at the average actual unit costs. Also a considerable portion of the installation cost data obtained from the Manufacturers Light & Heat Company was for the installation of plain-end line pipe in welded pipelines, the installation costs of which are generally higher than the Dresser coupled pipelines of the Hope Company with which they are compared in columns 9 and 11 of Table 1 in this exhibit.

8 The actual average unit installation costs per foot shown in this exhibit are derived from a consideration and combination of costs for both screw-end and plain-end pipeline construction. Separate actual unit installation costs were not determined for these two classes of construction for the records did not indicate the complete information necessary for such a determination. The records of both the Hope Natural Gas Company and the Manufacturers Light & Heat Company did not segregate the exact footage of plain-end pipe laid as Dresser coupled pipeline from that laid as welded pipeline nor did they specify in all instances whether the pipe used was plain-end or screw-end pipe.

The installation costs for all drip assemblies installed by Hope Natural Gas Company during the years 1937 and 1938 in the pipelines included in this exhibit have been included with the construction cost of the pipeline. The installation costs applicable to drip assemblies are included separately as an additional cost in the Company's Reproduction Cost New estimate. (See transcript of testimony of Mr. Rhodes at pages 732 and 733.)

Had the actual installation costs pertaining to the drip assemblies been determined separately in this exhibit and the amounts applicable thereto deducted from the total installation cost of the pipeline, there would have resulted a lower installation cost per foot for the steel line pipe.

The compilation of actual cost data for new pipeline construction has included all jobs (for 15 $\frac{1}{16}$ " O. D., 12 $\frac{9}{32}$ " O. D. to 16" O. D. pipe) whether large or small, but even in the aggregate the footage does not accumulate to a project the size of that which would be encountered were the properties of Hope Natural Gas Company actually being reconstructed. There are savings incident to a large construction project which are not reflected in this exhibit, because the Company experience in pipeline construction cost is piece-meal.

The inclusion of the additional amounts, claimed by the Company above the "Original Cost of Gas Plant as of December 31, 1938" determined by the Commission accounting examiners for new lines constructed in 1937 and 1938 by Hope Natural Gas Company, would reduce the percentage difference shown in this exhibit on an average of approximately 10%. These Company claims are not considered in this exhibit, but are mentioned to show that if such amounts had been included, still there would be a large remaining difference between the installation costs per foot in Reproduction Cost New estimate and actual experienced costs plus such claimed amounts.

The actual installation cost data compiled from the construction costs analyses (for period 1937 and 1938) as determined by the Commission accounting examiners in their study of the "Original Cost of Gas Plant as of December 31, 1938" of the Company and the closed construction work orders of Hope Natural Gas Company and of Manufacturers Light & Heat Company, was analyzed and summarized. The installation costs so summarized covered more than 135 miles of pipeline construction at an installation cost of approximately \$304,000.00. The data transcribed from the several records of Hope Natural Gas Company and the Manufacturers Light & Heat Company, together with the development of the data presented in this investigation, are all available from the working papers underlying this exhibit.



## CONCLUSIONS

As a result of this investigation, Table 1 shows the comparison of estimated reproduction cost new unit cost per foot for the installation of steel line pipe (and casing used as line pipe) of 15 $\frac{1}{16}$ " , 12 $\frac{9}{32}$ " to 16" outside diameters, as included in the Reproduction Cost New of Company Properties as of December 31, 1938, with actual costs as experienced by the Hope Company and another company during the years 1937, 1938, 1939 and 1940. The figures in columns (8) and (10) are differences determined by comparing the unit installation costs per foot for screw-end pipe, or the highest unit installation costs for pipe sizes over 4 $\frac{1}{2}$ " O. D. as included by the Company in their reproduction cost new estimate, with the actual installation costs as experienced by the two companies. The figures in columns (9) and (11) are likewise differences determined by comparing the unit installation costs per foot for plain-end Dresser-coupled pipe, or the lowest unit installation costs for pipe sizes over 4 $\frac{1}{2}$ " O. D. as included by Mr. Rhodes in his estimate, with the actual installation costs as experienced by Hope Natural Gas Company and Manufacturers Light & Heat Company.

Table 2 shows the actual weighted average installation cost per foot of steel line pipe (and casing used as line pipe) derived from actual construction costs experienced by Hope Natural Gas Company and Manufacturers Light & Heat Company.

Table 3 shows the development of installation costs per foot for lapweld screw-end steel pipe (and casing used as line pipe) as reflected in Mr. Rhodes' reproduction cost new estimate.

Table 4 shows the development of installation costs per foot for lapweld plain-end Dresser-coupled steel line pipe as included in Mr. Rhodes' estimate of reproduction cost new.

It is manifest from this comparison study that the Company's estimate of pipeline unit installation cost, contained in its Reproduction Cost New exhibit, is strikingly higher than such cost actually experienced by the Hope Natural Gas Company and the Manufacturers Light & Heat Company for recent pipeline construction.

(Signed) MICHAEL J. BODNER.  
Michael J. Bodner.

Date: April 16, 1941, Washington, D. C.

Comparison of reproduction cost new unit cost per foot for installation of line pipe (including all overheads on material and labor) as included in reproduction cost new of company properties as of December 31, 1938, with actual costs as experienced by the company and others during years 1937, 1938, 1939, and 1940

Outside	Diameter (inches)	Weight per foot (pounds)		R. C. N. labor cost per foot (including all overheads on material and labor)		Weighted average actual labor cost per foot including all overheads	Difference		Percent difference	
		Screw end	Plain end	Screw end pipe	Plain end pipe		Screw end pipe	Plain end pipe	Screw end pipe	Plain end pipe
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(5) - (7)	(6) - (7)	(8) + (7) X 100	(9) + (7) X 100
1 3/4		1.70	1.67	\$0.110		\$0.173	0.063		19.1	
1 3/8		2.75	2.71	.171		.318	.147		46.2	
2 1/2		3.75	3.65	.266	\$0.356	.140	.159	\$0.216	113.6	154.3
3 1/2		7.76	7.57	.466	.569	.234	.232	.275	99.1	117.5
4 1/2		11.00	10.79	.598	.590	.361	.267	.199	57.3	55.1
5 1/2	4 3/8 "A"	10.00		.729			.365		101.1	
5 1/2	5 1/8 "A"	15.00	14.61	.760	.701		.405	.336	114.1	97.5
6	5 3/8 "A"	13.00	13.00	.746	.691	.355	.394	.326	110.1	94.6
6 3/8		19.45		.919			.438		123.4	
6 3/8	6 1/4 "A"	17.00	18.97	.902	.821		.465	.367	102.4	80.8
7	6 3/4 "A"	15.00	17.00	.902	.809	8.454	.408	.355	98.7	78.2
7	6 3/4 "A"	20.00	17.00	.902	.809		.408	.355	98.7	78.2
7	6 3/8 "A"	20.00	20.00	.922	.827		.458	.373	103.1	82.2
8			22.36		1.014			.179		21.4
8 3/8		25.55	24.69	1.219	1.023		.384	.188	46.0	22.5
8 3/8		27.74			1.041	8.85		.296		24.7
8 3/8		29.35	28.55	1.243	1.045		.408	.210	48.9	25.1
8 3/8	8 1/4 "A"	21.00	24.00	1.269	1.020		.374	.185	44.8	22.2

TABLE 1.—HOPE NATURAL GAS COMPANY, G-113

Comparison of reproduction cost new unit cost per foot for installation of line pipe (including all overheads on material and labor) as included in reproduction cost new of company properties as of December 31, 1938, with actual costs as experienced by the company and others during years 1937, 1938, 1939, and 1940—Continued

Outside (1)	Diameter (inches) (2)	Weight per foot (pounds)		R. C. N. labor cost per foot (including all overheads on ma- terial and labor)		Weighted average actual labor cost per foot (including all overheads on material and labor)	Difference		Percent difference	
		Screw end (3)	Plain end (4)	Screw-end pipe (5)	Plain-end pipe (6)		Screw-end pipe (5)-(7)	Plain-end pipe (6)-(7)	Screw-end pipe (8)+(7)×100 (10)	Plain-end pipe (9)+(7)×100 (11)
10 <sup>3</sup> / <sub>4</sub>	10		22.86		\$1.285			\$0.759		144.3
10 <sup>3</sup> / <sub>8</sub>	10		28.03		1.317			.791		150.4
10 <sup>3</sup> / <sub>2</sub>	10	32.75		\$1.619	1.324	\$0.526	1.063		207.8	151.7
10 <sup>3</sup> / <sub>4</sub>	10	35.75	34.24	1.638	1.341		1.112	.815	211.4	154.9
10 <sup>3</sup> / <sub>8</sub>	10	41.85	40.48	1.677	1.376		1.131	.820	218.8	161.6
12 <sup>3</sup> / <sub>4</sub>	12		29.27		1.541			.906		48.9
12 <sup>3</sup> / <sub>8</sub>	12		41.51		1.600			.565		54.6
12 <sup>3</sup> / <sub>2</sub>	12	45.45	43.77	2.015	1.617	1.035	.980	.582	94.7	56.2
12 <sup>3</sup> / <sub>4</sub>	12	51.15	49.56	2.052	1.650		1.017	.615	98.3	59.4
12 1/2" A"		50.00		2.044			1.009		97.5	
16			62.05		2.042	1.175		.807		73.8
16			62.35		2.098			.923		78.6
16		65.30	62.57	2.654	2.162		1.679		142.9	84.0

NOTES.—Data in italic figures denote defect.

"A" denotes casing.

Data in columns (1) to (4) taken from exhibit 16 C, pp. 107 and 108, and exhibit 16 D, pp. 250 and 261.

Data in column (5) taken from column (3) of p. 13.

Data in column (6) taken from column (3) of p. 16.

Data in column (7) taken from column (3) of p. 14.

*Tabulation showing the weighted average labor cost per foot for installation of steel line pipe including all overheads on material and labor*  
 [Actual costs for laying new lines experienced by Hope Natural Gas Company for years 1937 to 1940 and 1 by Manufacturers Light and Heat Company from March 1938 to December 1940]

Pipe size	Hope Natural Gas Co., 1937 and 1938 <sup>1</sup>				Hope Natural Gas Co., 1939 and 1940 <sup>1</sup>				Manufacturers Light & Heat Co., March 1938 to December 1940 <sup>2</sup>				Total	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
		Feet installed	Total labor cost (including all overheads on material and labor)	Weighted average labor cost per foot (3) ÷ (2)	Feet installed	Total labor cost (including all overheads on material and labor)	Weighted average labor cost per foot (6) ÷ (5)	Feet installed	Total labor cost (including all overheads on material and labor)	Weighted average labor cost per foot (9) ÷ (8)	Feet installed (12) ÷ (11) + (8)	Total labor cost (including all overheads on material and labor) (3) + (6) + (9)	Weighted average labor cost per foot (12) ÷ (11)	
1"		324	\$18.35	\$0.057	3,028	\$561.13	\$0.185				3,352	\$579.48	\$0.173	
1½"		1,724	637.30	.370	6,890	2,081.78	.305				8,551	2,719.98	.318	
2"		93,065	10,264.82	.110	77,197	13,550.79	.176	18,168	\$2,520.68	\$0.141	188,400	26,376.04	.140	
3"		59,503	11,312.39	.191	28,176	9,091.91	.323	230	96.71	.420	87,009	20,531.01	.234	
4"		22,547	5,611.36	.249	30,259	13,467.65	.446	43,920	4,966.38	.359	66,726	24,065.39	.361	
5", 5½" & 5¾"		42,399	12,837.82	.303	37,643	15,463.20	.409	1,010	702.92	.437	81,562	28,943.94	.355	
6", 6¼" & 6½"		75,508	28,050.40	.371	50,512	29,077.21	.576	1,233	672.30	.545	127,253	57,800.01	.454	
8"		4,065	3,512.27	.864	2,431	1,880.82	.775	75	91.21	1.216	6,571	5,487.30	.835	
10"		39,013	20,329.68	.521				276	328.21	1.189	36,269	20,657.89	.526	
12"					51,997	53,898.70	1.065				53,808	63,272.27	1.175	
16"		53,858	63,272.27	1.175										
Total		391,946	135,876.53		288,073	138,946.19		35,512	9,348.41		715,531	304,271.11		
Miles		74.2			54.6			6.7			135.5			

<sup>1</sup> Obtained from adjusted book costs for Hope Natural Gas Company, for years 1937 and 1940 (as determined by F. P. C. accounting examiners).

<sup>2</sup> Obtained from closed construction work orders.

[Pages 15 to 16 omitted].

1     **EXHIBIT NO. 74.—REPORT ON THE "ORIGINAL COST"  
TRENDING TO 1938 PRICES OF THE PLANT OF HOPE  
NATURAL GAS COMPANY EXISTING AT DECEMBER 31,  
1938, F. P. C. WITNESS GOUGH**

[Pages I to V omitted]

The subject of this report is the trending of the Original Cost of the plant of Hope Natural Gas Company existing at December 31, 1938, presented as evidence in this proceeding by Mr. Peter Antonelli of the firm of Ford, Bacon & Davis, Inc., on behalf of the company, in Exhibit No. 20. The trending, which is made to 1938 prices, involves thirty-two plant accounts of the company with an original cost per books of \$52,730,665, that was revised to \$69,735,637, and then trended to \$105,101,912. The purpose in examining the trending was to learn exactly by what means it was effected and to ascertain whether the results obtained were in any sense an indication of the fair value of the company's property.

The problem of investigating the trending was attacked by means of a close study of several of the larger accounts. This approach proved preferable to an examination of all plant accounts for it made feasible an extensive study of the important few. Pursuant to this plan, basic data underlying Exhibit No. 20, chiefly as they relate to the three largest accounts, were analyzed. This procedure provided material with which  
2     the results of the trending process could be tested and interpreted and, it provided that material from the very source from which the trended results themselves were obtained.

The results of the examination led to the positive conclusion that the methods and processes used in the trending are without merit and that the amount of \$105,101,912 developed and set forth in Exhibit No. 20 as the product of that trending should in nowise serve as a criterion for the purpose of determining the fair value of the plant of Hope Natural Gas Company.

To aid in the presentation of the subject matter of this report, the analyses and interpretations of the plant accounts are preceded by a section entitled "Exhibit No. 20," which is a general exposition of the method of trending used in that Exhibit.

## EXHIBIT No. 20

Exhibit No. 20 presents a revision of the Original Cost of the plant of Hope Natural Gas Company as at December 31, 1938, and a trending of that revised cost to 1938 prices. By the revision, the Original Cost of plant per the company's books amounting to \$52,730,665 was raised to \$69,735,637 and by the trending that \$69,735,637 was raised to \$105,101,912. This report deals only with the trending, by means of which the revised

Original Cost was increased \$35,366,275; it does not take  
 3 up the matter of the revision of Original Cost. That question and the question of whether the dollars of Original Cost as revised have been properly assigned to the years when the property they represent was installed are separate and apart from the subject of this report.

Reference in this report to Original Cost unless otherwise clearly indicated by the context is to Original Cost as revised in Exhibit No. 20.

*The Method of Trending.*

The purpose of trending the Original Cost of the company's plant as revised was to determine how much it would cost to build the company's properties existing at December 31, 1938, on the assumption that that property would be built just as it actually was built, at present price levels (1938 prices) (T. 1537). This supposition, implying the slower, more laborious construction methods of the past priced on a time basis, at the higher wage-rates of 1938, and the lower material costs of yester-year priced at 1938 levels, was bound to produce a trended cost much greater in amount than the Original Cost, and it did. The Original Cost of all but one of the company's thirty-two plant accounts was trended higher, and the trending of the exception reduced its Original Cost only \$3,583, or less than one percent. The over-all effect of the trending as indicated above produced an amount 50 percent greater than the amount of Total Original Cost as revised.

4 The method by which the trending was accomplished may be said to consist of three steps. They are the division of the Original Cost of each account into the documents thereof representative of the plant installed in each year; the development of a series of trend factors for each account, one for each year; and the translation of Original Cost into what is purported to be its 1938 equivalent, by means of the trend factors. The



first step, as indicated on page 3 above, is not treated in this report and the third step, since it is merely a mathematical calculation accomplished by dividing Original Cost by the trend factors, requires as such, no comment. The second step, the development of the trend factors, is the point of scrutiny and only upon the development of these factors and the implications in their use does this report focus attention. The effect of the application of the trend factors upon all of the company's accounts is most readily perceived from a review of Statement B of Exhibit No. 20 which contains a summary of the trending of all these accounts.

#### *The Trending by Accounts.*

Statement B (pp. 31-32, Exhibit No. 20) reveals that \$35,098,442, or more than 99 percent of the total excess of Original Cost Trended over Original Cost amounting to \$35,366,275, is to be found in eight of the thirty-two plant accounts trended and, moreover, that these eight accounts include more than 90 percent of the Original Cost that was trended. The amounts for these accounts, taken from Statement B, are enumerated in Table 1 which follows.

5 TABLE 1.—*Original cost trended, original cost and excess of original cost trended over original cost of the eight largest plant accounts and of all plant accounts as at Dec. 31, 1938.*

Name of account	Original cost trended (Exhibit No. 20)	Original cost (Exhibit No. 20)	Excess of original cost trended over original cost
Producing gas wells:			
Construction	\$34,384,320	\$17,783,637	\$16,600,683
Equipment	10,663,983	8,168,191	2,495,792
Field lines:			
Construction	7,038,970	4,076,871	2,962,099
Equipment	10,505,272	8,279,885	2,225,387
Mains:			
Construction	9,684,569	5,296,108	4,418,461
Equipment	13,390,169	10,225,450	3,134,719
Compressor station structures	2,498,445	1,811,695	686,849
Compressor station equipment	11,536,567	8,644,011	2,892,556
	99,672,298	64,255,760	35,416,538
Less: Property in the 8 accounts listed above that is used to transport coke-oven gas	1,100,075	781,979	318,096
Portion of total plant (exclusive of property used to transport coke-oven gas) included in the 8 accounts listed above	98,572,223	63,473,781	35,098,442
Total plant (exclusive of property used to transport coke-oven gas)	105,101,912	69,735,637	35,366,275

Source: Statement B, Exhibit No. 20.

6 Of the eight accounts listed in Table 1, three, namely, the Gas Well, Field Lines, and Mains Construction accounts consist almost entirely of labor costs; three, namely, the Gas Wells, Field Lines, and Mains Equipment accounts consist almost entirely of material costs; and two, Compressor Station Structures and Compressor Station Equipment consist of both labor and material costs. The amounts in the tabulation clearly indicate that the three Construction accounts were trended relatively much higher than the three Equipment accounts for the same classes of property. The increase in the Construction accounts by trending was 89 percent, while the increase in the Equipment accounts was only 29 percent. The excess of Original Cost Trended over Original Cost for the three Construction accounts amounting to \$23,981,263 comprises about two-thirds of the excess of all thirty-two accounts, amounting to \$35,366,275.

Three of the eight plant accounts listed in Table 1 were chosen for detailed study: Producing Gas Wells—Well Construction, Mains—Construction, and Mains—Equipment. They were selected because they constitute the largest Construction and Equipment accounts and represent in themselves a large part of total plant. Combined they contain nearly one-half of all Original Cost that was trended and embrace \$24,153,863 of the total Excess of Original Cost Trended over Original Cost. A section of this report is devoted to each of them.

## 7 PRODUCING GAS WELLS—WELL CONSTRUCTION

The Producing Gas Wells—Well Construction Account is of outstanding importance in this examination because it is the largest of the company's plant accounts and was trended to an amount greatly in excess of the Original Cost of the property it represented. From an Original Cost of \$17,783,637, it was trended to \$34,384,320, an amount \$16,600,683 or 93 percent in excess of that Original Cost. The trending was done by the application of factors based entirely on wage-rates. Charges to the account consist of the labor cost of drilling wells and other costs incident to that operation, such as teaming, rig-costs, and torpedoes.

Two studies of this account were made: an analysis of well drilling costs and an analysis of Original Cost as shown in Exhibit No. 20. The analysis of well drilling costs covers the years 1904-15, and 1938, and the analysis of Original Cost, the years

1896-1900, 1911-15, 1937, and 1938. In both studies the ratio that the costs of earlier years bear to the costs of 1938 were developed and compared with the trend factors used in Exhibit No. 20.

Since well drilling costs constitute the major part of all costs charged to the Well Construction Account, the studies to the extent that they cover the same years may be said to be a duplication, and in a sense they are. Both were undertaken so that comparisons from two sets of data might be made. Results for the years 1911-15, which are the years covered by both studies, are similar, as might be expected. The well drilling costs per foot for that period were 59.6 percent of those costs for the year 1938 and the corresponding ratio developed from the analysis of Original Cost was 60.0 percent. The proximity of these percentages indicates a close correlation between the cost per foot for drilling and the cost per foot for all charges applicable to the account.

The Original Cost of Well Construction like the Original Cost of all other plant accounts trended in Exhibit No. 20 was divided into the amounts thereof installed in each of the years during the period in which the plant that it represents was built. For Well Construction this period extends back forty-eight years, from 1938 to 1891, and part of the Original Cost of that account was installed in every one of those years. To each of these forty-eight subdivisions of the Original Cost of Well Construction a trend factor was applied to convert it into what purported to be its 1938 equivalent. This application and the resultant Original Cost Trended are shown on pages 66 and 67 of Exhibit No. 20. The conversion was accomplished simply by dividing each yearly amount of Original Cost by its trend factor.

#### *The Development of the Trend Factors.*

The factors used to trend Well Construction in Exhibit No. 20 for the years prior to 1906 were derived from the hourly wage-rates for Common Laborers, the only wage-rates available for those years, and for the years 1906 to 1938 from the hourly wage-rates for Drillers and Tool Dressers weighted equally, one and one. The wage-rates are those paid by the company (See pp. 55-6, Exhibit No. 20). For example, the trend factor of 38.2 which was used to trend Original Cost installed in 1911 is a composite of one-half the sum of 39.96 and 36.49, the trend ratios for Driller and Tool Dresser, respectively, for 1911. These ratios are the percent which the 1911

hourly wage-rates of Driller and Tool Dresser bear to their 1938 wage-rates.

Since the trend factors of Exhibit No. 20 are really the ratios that the hourly wage-rates of early years bear to the hourly wage-rates of 1938, the division of the amount of Original Cost by them, which is carried out in that Exhibit, translates that Original Cost into the amount the property would have cost to construct had it been installed in the number of hours in which it actually was installed, paid for at the hourly wage-rates prevalent in 1938. Virtually the resultant Original Cost Trended is the product of the hourly wage-rate of 1938 multiplied by the man-hours expended in earlier years; it represents the hourly wage-rates of the 40-hour week (or 176-hour month) of 1938 multiplied by the man-hours of the 72-hour week (or 312-hour month) of the past. (See Column 2, Appendix B, which is a copy of working papers that support Exhibit No. 20.) It is the capitalization of the weekly or monthly time of Drillers and Tool Dressers, who until 1924 worked 72 hours a week, in amounts that are as much as 77 percent higher than the amounts they received per week or per month in 1938. It is a capitalization of man-hours without regard to what was accomplished in those hours.

#### *Well Drilling Costs.*

The greater part of Original Cost of Producing Gas Wells—Well Construction, existing at December 31, 1938, probably about 70 percent of it, consisted of well drilling costs, and for this reason and the fact that the remainder of the costs were incident to the drilling costs, the entire account was trended in Exhibit No. 20 with factors derived from hourly wage-rates for drillers and tool dressers whose wages comprise well drilling costs. Accordingly, the average price per foot to drill affords a safe and convenient gauge with which to measure the trueness of the factors used to trend the account in Exhibit No. 20.

#### *Depth of Wells and Cost to Drill.*

Most of the company's well drilling was done under contract let by bid either to independent drillers or to the company's own well drilling department, on a "price per foot" basis, and a list of the costs incurred under certain of these contracts for certain years was available. This list which is reproduced in this report as Appendix C gives the depth in feet to which wells were drilled and the price paid per foot to drill them. These figures were

studied, first, to determine the variation each year in the depth of drilling and in the price per foot to drill and then, to ascertain the effect, if any, that variation in the depth of drilling had upon price per foot to drill. It was important to confirm the fact that drilling conditions in each of the years were reasonably uniform, for that uniformity was a prerequisite to the next step in the study, the development of drilling cost ratios.

Table 2, and the data underlying it, which are reproduced in this report in Appendix C, show clearly that wells were drilled to fairly uniform depths during the years compared, and that drillings were within such a narrow depth range that the price per foot to drill was not appreciably affected. For example, the deepest well drilled in 1938, to a depth of 4,503 feet cost \$1.75 per foot to drill, although one of the shallowest wells drilled in that year, to a depth of only 1,642 feet, cost \$2.50 per foot to drill. The cost of the wells listed in Appendix C indicates that depth was not an important determinant of the price per foot to drill.

TABLE 2—Well construction—Drilling statistics for the years 1904-05, 1906-10, 1911-15, and 1938

	1904-05	1906-10	1911-15	1938
Basis for comparative statistics shown below:				
Number of wells drilled.....	10	25	73	26
Number of feet drilled.....	26,734	60,442	177,556	65,668
Cost of drilling, per foot:				
Highest price.....	\$1.35	\$1.40	\$1.30	\$2.50
Lowest price.....	\$1.10	\$1.10	\$1.00	\$1.45
Weighted average price.....	\$1.23	\$1.20	\$1.15	\$1.93
Depth drilled, in feet:				
Deepest drilling.....	3,054	3,094	3,214	4,503
Shallowest drilling.....	1,848	1,267	1,940	1,575
Average drilling.....	2,673	2,418	2,432	2,526

<sup>1</sup> The next shallowest drilling was 1,304 feet.

The ratios which the prices per foot to drill in the 1904-05, 1906-10, and 1911-15 periods bear to the price per foot to drill in 1938 are compared in Table 3 with the highest and lowest trend factors used in Exhibit No. 20 for years in those periods. This comparison shows unmistakably that the trend factors used in Exhibit No. 20 are much lower than they would be if they were predicated upon the cost to produce units of property rather than upon hourly wage rates only. The price-per-foot ratios were developed from the weighted average prices shown on Table 2.



14 **TABLE 3.—Producing gas wells—Well construction—A comparison of the trend factors used in Exhibit No. 20 for the years 1904-05, 1906-10, 1911-15, and 1938 with ratios based on well drilling costs for those years**

Years	Trend factors used in Exhibit No. 20 (1938=100.0)		Ratio of average price per foot for well drilling (1938=100.0)
	Highest	Lowest	
1904-05	33.1	31.1	63.7
1906-10	37.6	35.6	62.2
1911-15	40.2	38.2	59.6
1938	100.0	100.0	100.0

15 **Analysis of Original Cost.**

Although the well drilling cost tests, by inference, lead to the conclusion that man-hours for years prior to 1938, which were priced at 1938 hourly wage-rates in Exhibit No. 20, were less productive than 1938 man-hours, ultimate proof of the correctness of that conclusion really is to be found in an analysis of the Original Cost of Well Construction itself. Such an analysis was undertaken to establish that fact incontrovertibly.

A complete analysis of the Original Cost of the Well Construction Account was neither necessary nor feasible. It would have been a most lengthy task. Instead, two periods of five years each were chosen for analysis, the years 1896 to 1900, and 1911 to 1915, inclusive. Originally, the later period was selected because the amount of Original Cost installed in that period and existing at December 31, 1938; was sufficiently large to be representative of the account and also because the period was one of normal construction conditions. Moreover, its remoteness to 1938 gave full play to the very circumstances of the trending process sought to be exposed. Later, the 1896-1900 period was analyzed to widen the range of the period tested and to afford proof that the results of the analysis of the period first tested were not exceptional.

The aim in making this analysis was to determine the man-hour productivity of labor during the periods analyzed and it was accomplished in four steps. The cost of Well Construction

16 exclusive of Overheads was segregated from the total Original Cost of that construction; the number of feet of construction which that cost represented was tabulated; the cost of Construction exclusive of Overheads was divided by the amount of the average hourly wage-rates used in the trending process (Exhibit No. 20), thus developing the number of man-hours ex-



pended on the construction; and, finally, the number of feet of construction was divided by the man-hours expended to determine the number of feet of Well constructed per man-hour.

In order to present a comparison of the man-hour productivity and costs of the earlier years with those of 1938, the year to which Original Cost was trended in Exhibit No. 20, an analysis of 1938 costs similar to the analysis made for the earlier period also had to be and was undertaken. It was supplemented by an analysis of costs for 1937, which had been given the same value for trending purposes in Exhibit No. 20 as those of 1938, viz., 100.0, for the reason that the 1938 Construction alone did not provide a great amount of construction experience.

The amounts of Original Cost for the years that were analyzed and the amounts to which they were trended are reproduced from Exhibit No. 20 in Table 4.

17 TABLE 4.—*Producing gas wells—Well construction—Original cost and original cost trended per Exhibit No. 20, pages 66 and 67, 1896-1900, 1911-15, 1937, and 1938*

Year first placed in public service	Original cost	Trended to 1938 prices (1938=100.0)	Original cost trended to 1938 prices
(A)	(B)	(C)	(D) (B divided by C)
1896	\$16,621.40	27.8	\$59,789.53
1897	24,765.33	27.8	89,083.95
1898	9,619.62	27.8	34,602.95
1899	76,100.49	27.8	273,742.77
1900	106,957.23	31.1	343,913.87
	234,064.18		801,133.04
1911	667,715.80	38.2	1,747,947.11
1912	609,543.22	38.2	1,595,662.86
1913	818,211.69	40.2	2,035,352.44
1914	800,037.36	40.2	1,990,142.69
1915	579,832.06	40.2	1,442,370.60
	3,475,341.06		8,811,475.67
1937	153,520.10	100.0	153,520.10
1938	153,069.59	100.0	153,069.59

18 The analysis of Original Cost for the years enumerated in Table 4 was made from the company's "Well Construction Record" which gives the depth and cost of construction of each well. A summary of the results of the analysis by years showing Well Construction Costs divided into five classifi-

cations is presented in Table 5. The analysis discloses that more than nine-tenths of total Original Cost is in the two classifications that cover drilling operations, namely, Original Drilling and Drilling Deeper, and it was made particularly to ascertain the amount of direct costs applicable to each of these two operations.

19 **TABLE 5.—Producing gas wells—Well construction—Analysis of original cost per Exhibit No. 20, 1896–1900, 1911–15, 1937, and 1938**

Year	Original drilling exclusive of overheads <sup>1</sup>	Drilling deeper exclusive of overheads <sup>1</sup>	Adjustments for change in equipment	Overheads	Purchased from non-utility	Total original cost (Exhibit No. 20)
1896	\$16,621.49					\$16,621.49
1897	23,396.79	\$1,368.54				24,765.33
1898	9,057.08	562.54				9,619.62
1899	42,469.28		\$833.91	\$33.79	\$34,431.33	76,100.00
1900	95,693.61		755.95	392.09	11,627.48	106,957.00
1911	594,521.77	32,009.08	4,278.28	34,717.18	10,146.03	667,715.00
1912	573,598.10	12,355.11	5,629.86	29,193.11	26.76	609,543.00
1913	755,865.14	22,263.65	6,844.48	38,955.19	7,972.19	819,211.00
1914	729,261.77	29,672.25	5,068.78	38,195.30	7,776.22	800,037.00
1915	479,850.19	54,289.09	1,328.65	32,329.82	14,692.54	579,832.00
1937	115,040.72	25,124.37	4,506.45	18,002.74	845.82	163,520.00
1938	114,721.81	12,973.30	5,029.56	15,680.75	4,664.17	153,066.00

<sup>1</sup> The amounts shown in this column for the years 1896 to 1900 include the cost of a number of wells drilled for other companies, for which the overheads could not be determined and segregated.

## 20 *Man-Hour Productivity.*

With direct labor costs and number of feet drilled available from the analysis of Original Cost, both for Original Drilling and Drilling Deeper, it was possible by the use of the wage rate used in developing the trend factors of Exhibit No. 20 to obtain the number of man-hours expended in each year and consequently the number of feet of Well constructed per man-hour. The man-hours expended, relating as they do to all the direct costs of Well Construction, embrace not only the drilling operation but the installation of casing and tubing as well. These computations are shown in Tables 6 and 7 which also show the average performance for each year translated into the ratio it bears to 1937 performance.

21 TABLE 6.—*Producing gas wells—Well construction—Determination of number of feet of original drilling drilled per man-hour in the years 1896-1900, 1911-15, 1937, and 1938*

Year	Cost of original drilling exclusive of overheads (table 6)	Average hourly wage rates (Appendix D)	Man-hours expended	Feet of original drilling	Feet of original drilling drilled per man-hour	Ratios of man-hour productivity (1938=100.0)
(A)	(B)	(C)	(D) (B+C)	(E)	(F) (E+D)	(G)
1896	\$16,621.49	\$0.287	57,914	8,938	0.1543	38.4
1897	23,396.79	.287	81,521	13,104	.4007	40.5
1898	9,057.08	.287	31,557	4,974	.1576	39.7
1899	42,469.28	.287	147,976	24,166	.1633	41.1
1900	95,693.61	.322	297,185	59,083	.1988	50.1
1911	594,521.77	.396	1,501,318	353,725	.2356	59.3
1912	575,598.10	.396	1,448,480	343,376	.2371	59.7
1913	755,865.14	.416	1,816,983	437,257	.2406	60.6
1914	729,261.77	.416	1,753,033	450,457	.2569	64.7
1915	479,850.19	.416	1,153,486	313,577	.2719	68.5
1937	115,940.72	1.064	108,120	47,701	.4411	111.1
1938	114,721.81	1.074	106,817	42,438	.3972	100.0

22 TABLE 7.—*Producing gas wells—Well construction—Determination of number of feet of "drilling deeper" drilled per man-hour in the years 1896-1900, 1911-15, 1937, and 1938*

Year	Cost of drilling deeper exclusive of overheads (table 6)	Average hourly wage rates (Appendix D)	Man-hours expended	Feet of drilling deeper	Feet of drilling deeper drilled per man-hour	Ratios of man-hour productivity (1938=100.0)
(A)	(B)	(C)	(D) (B+C)	(E)	(F) (E+D)	(G)
1896		\$0.287				
1897	\$1,368.54	.287	4,768	860	0.1801	69.1
1898	562.54	.287	1,960	311	.1587	60.8
1899		.287				
1900		.322				
1911	32,609.08	.396	82,346	11,720	.1423	54.5
1912	12,355.11	.396	31,199	6,382	.2045	78.4
1913	22,263.65	.416	53,518	10,859	.2029	77.7
1914	29,872.25	.416	71,808	11,267	.1569	60.1
1915	54,289.09	.416	130,502	18,115	.1388	53.2
1937	25,124.37	1.064	23,613	5,014	.2123	81.3
1938	12,973.30	1.074	12,079	3,153	.2610	100.0

23 These two tables definitely show that the man-hours of years prior to 1938 were less productive than the man-hours of 1938. It is particularly notable that a steady improvement in man-hour productivity is discernible for Original Drilling during the years of the two five-year periods for which the volume of work done provides truly representative ratios.

A series of ratios that reflect not only increases in the hourly wage-rates but increases in the hourly productivity as well, shown in Tables 6 and 7, has been computed and is presented in Table 8. These ratios are predicated upon the cost per foot to construct, a unit which automatically gives weight both to the wage rate and productivity factors. The cost per foot was determined by dividing the Original Cost of Well Construction at December 31, 1938, installed in each of the years shown, by the number of feet that that Original Cost represents, as determined from the Well Construction Record used in the analysis of Original Costs. The comparison of these ratios with the trend factors used in Exhibit No. 20 (CF. page 17) is illuminating.

24 TABLE 8.—Producing gas wells—Well construction—Determination of original drilling, drilling deeper, and combined costs per foot, exclusive of overheads, for the years 1896-1900, 1911-15, 1937, and 1938

Year	Original drilling				Drilling deeper				Combined			
	Cost (table 6)	Feet (C)	Cost per foot (D) (B+C)	Ratio of cost per foot (1938=100.0) (E)	Cost (table 6) (F)	Feet (G)	Cost per foot (H) (F+G)	Ratio of cost per foot (1938=100.0) (I)	Cost (B+F) (J)	Feet (C+G) (K)	Cost per foot (L) (J+K)	Ratio of cost per foot (1938=100.0) (M)
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
1896	\$16,621.49	8,938	\$1.86	68.9					\$16,621.49	8,938	\$1.86	66.4
1897	23,366.79	13,104	1.78	65.9	\$1,398.54	800	\$1.59	38.7	24,765.33	13,904	1.77	63.2
1898	9,057.08	4,974	1.82	67.4	922.54	311	1.81	44.0	9,979.62	5,285	1.82	65.0
1899	42,499.28	24,166	1.76	65.1					42,499.28	24,166	1.76	62.9
1900	95,693.61	59,083	1.62	60.0					95,693.61	59,083	1.62	57.9
1896-1900	187,238.25	110,265	1.70	63.0	1,931.08	1,171	1.65	40.1	189,169.33	111,436	1.70	60.7
1911	594,521.77	353,725	1.68	62.2	32,069.08	11,720	2.78	67.6	627,130.85	365,445	1.72	61.4
1912	573,568.10	343,376	1.67	61.9	12,355.11	6,362	1.94	47.2	585,953.21	349,738	1.68	60.0
1913	755,865.14	437,267	1.73	64.1	22,383.65	10,859	2.05	49.9	778,128.79	448,116	1.74	62.1
1914	729,261.77	450,457	1.62	60.0	28,872.25	11,267	2.65	64.5	758,134.02	461,724	1.64	58.6
1915	479,850.19	313,577	1.53	56.6	54,289.64	18,115	3.00	73.0	534,139.83	331,692	1.61	57.5
1911-15	3,133,096.97	1,896,392	1.65	61.1	151,389.18	58,343	2.59	63.0	3,284,486.15	1,956,735	1.68	60.0
1937	115,040.72	47,701	2.41	89.2	25,124.37	5,014	5.01	121.9	140,165.09	52,715	2.66	95.0
1938	114,721.81	42,438	2.70	100.0	12,973.30	3,153	4.11	100.0	127,695.11	45,591	2.80	100.0

Next to Producing Gas Wells—Well Construction, Mains-Construction is the largest of the property accounts consisting chiefly of labor costs. Primarily, it contains the cost of labor for laying mains and certain other costs incident to that operation, such as teaming and freight. From an Original Cost of \$5,266,108 it was trended to \$9,684,569, an amount \$4,418,461 or 84 percent in excess of that Original Cost.

In preparing analyses and in making comparisons of Mains-Construction two things were kept in mind: that lines consisted of pipe of several dimensions and that they had been laid under varying conditions, such as soil and terrain conditions, not to mention others. These obstacles were overcome by making comparisons by pipe size, and for those sizes only for which there was sufficient footage to assure typical average costs.

Two studies were made: one embracing 1,400,315 feet of main installed, based upon an analysis of the Original Cost shown in Exhibit No. 20 for the years 1911-15 and 1936-38, and the other embracing 3,294,595 feet, based upon typical construction in three sizes of main for the years 1898-1938. To the extent that both studies cover main in plant existing at December 31, 1938, they overlap. The first study is an analysis and comparison of amounts

of Original Cost that were trended in Exhibit No. 20; the second is an analysis and comparison of all typical installations in three sizes of main over a long period of years, including both main that was and was not in plant as of December 31, 1938.

#### *The Development of the Trend Factors.*

Similar to Well Construction, in that it is made up of labor costs, Mains-Construction was trended in the same way as that account, by the use of trend factors developed from hourly wage-rates. The method employed has been analyzed and compared in this report in the same manner that the method employed for Well Construction has been analyzed and compared, and for the same general purpose.

The factors used in Exhibit No. 20 to trend Mains-Construction were derived for the years prior to 1906 from hourly wage-rates for common labor, the only wage-rates available for those years, and for the years 1906 to 1938 from hourly wage-rates for roustabouts and laborers. The factors for 1906 and subsequent



years were obtained by weighting the hourly wage-rates, as found on the company's books, of one roustabout and four laborers. (See pp. 55-6, Exhibit No. 20.) For example, the factor of 40.4 which was used to trend Original Cost installed in 1911 is a composite of one-fifth of 39.01 and four-fifths of 40.80, the trend factors for roustabout and laborer, respectively, for 1911. (See Appendix E and F.) These factors are the ratio that the 1911 hourly wage-rates of roustabout and laborer bear to the 1938 wage-rates for those types of labor. Having been trended in the same manner that Well Construction was trended, the Original Cost of Mains-Construction trended represents, as the Original Cost of Well Construction trended does, the capitalization of man-hours of bygone years at 1938 labor rates.

#### *Analysis of Original Cost.*

The analysis of Original Cost of Mains-Construction for the years 1911-15 and 1936-38 was undertaken for the purpose of making a comparison of the man-hour productivity and the cost per foot to lay mains in two periods. The amounts of that Original Cost analyzed and the amounts to which they were trended in Exhibit No. 20 are shown in Table 9. Their classification into Direct Costs and Overheads are shown in Table 10.

TABLE 9.—Mains—Construction—Original cost and original cost trended per Exhibit No. 20 (p. 82), for the years 1911-15, 1936, 1937, and 1938.

Year first placed in public service	Original cost	Trend to 1938 prices (1938 = 100.0)	Original cost trended to 1938 prices
(A)	(B)	(C)	(D) (B÷C)
1911	\$235,578.12	40.4	\$583,114.15
1912	8,866.88	40.6	21,839.61
1913	342,213.67	41.7	820,656.26
1914	4,534.52	41.3	10,979.47
1915	13,499.97	41.8	32,296.57
	604,693.15		1,468,886.06
1936	671,024.71	88.1	761,662.55
1937	113,713.37	100.0	113,713.37
1938	3,563.97	100.0	3,563.97
	788,302.05		

29 **TABLE 10.—Mains—Construction—Original cost per Exhibit No. 29 subdivided into direct costs and overheads for the years 1911-15, 1936, 1937, and 1938**

Year	Direct costs	Overheads	Total
1911-15.....	<sup>1</sup> \$580, 155. 05	\$25, 581. 31	\$604, 693. 16
1936.....	612, 268. 75	56, 755. 96	671, 024. 71
1937.....	104, 205. 89	9, 417. 48	113, 713. 37
1938.....	3, 313. 45	250. 52	3, 563. 97
1936-38.....	719, 878. 09	68, 423. 96	788, 302. 05

<sup>1</sup> Includes \$1,043.20 for lines installed prior to 1911 and \$87,793.07 for property purchased from a predecessor.

### 30 *Man-Hour Productivity.*

Table 11 shows the direct costs of the 1911-15 and 1936-38 periods for 10-, 12-, 16-, and 20-inch main with the footage of installation for each size. The direct costs of these sizes comprise about 97 percent of the total direct costs for each period. This table also shows the number of feet of main, by sizes, installed per man-hour during each of the two periods, and the ratio of the man-hour productivity in the 1911-15 period to man-hour productivity in the 1936-38 period. The number of feet installed per man-hour was obtained by dividing the number of feet installed by the number of man-hours expended on their installation, and the number of man-hours expended, by dividing direct costs by the average hourly wage rates for Mains-Construction as determined from the working papers of Exhibit No. 20. The man-hour productivity of three years, 1936-38, rather than the productivity of 1938 alone was compared with the 1911-15 man-hour productivity for the reason that the amount of Original Cost installed in 1938, being only \$3,563, does not afford adequate performance experience.

The comparisons for all four dimensions of pipe indicate greater man-hour productivity in the later period.

31 TABLE 11.—Mains—Construction—Determination of feet of main installed per man-hour in the years 1911-15 and 1936-38

Period	Dimension of main in inches	Year installed	Original cost exclusive of overheads—direct costs (Table 12)	Average hourly wage rates (Appendix G)	Man-hours expended (D) ÷ (E)	Feet of main installed (G)	Feet of main installed per man-hour (H) (G ÷ F)	Ratio of man-hour productivity (1936-38 = 100.0)
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
1911-15	10	1911	\$8,106.12	\$0.219	37,014	17,388		
		1912		.220				
		1913	49,517.89	.225	220,080	121,850		
		1914		.224				
		1915	12,987.04	.256	50,731	31,151		
		Total	70,611.05	.229	307,825	170,889	5551	54.3
12		1914	108,108.57	.219	493,616	203,678		
		1912		.220				
		1913	10,436.00	.225	46,385	13,789		
		1914	4.29	.224	19	10		
		1915		.256				
		Total	118,548.86	.220	540,050	217,477	4027	90.1
16		1911		.219				
		1912	5,222.12	.220	23,737	5,870		
		1913	120,403.26	.225	535,126	110,388		
		1914	1,115.46	.224	4,980	1,740		
		1915		.256				
		Total	126,740.84	.225	563,843	117,998	2093	44.2

31 TABLE 11.—*Mains—Construction—Determination of feet of main installed per man-hour in the years 1911-15 and 1936-38—Con.*

Period	Dimension of main in inches	Year installed	Original cost exclusive of overheads—direct costs (table 12)	Average hourly wage rates (Appendix G)	Man-hours expended	Feet of main installed	Feet of main installed per man-hour	Ratio of man-hour productivity (1936-38=100.0)
(A)	(B)	(C)	(D)	(E)	(F) (D ÷ E)	(G)	(H) (G ÷ F)	(I)
32 1936-38	20	1911	\$108,081.13	\$0.219	493,521	125,905		
		1912	258.12	.220	1,173	228		
		1913	143,439.64	.225	637,510	100,338		
		1914	1,559.70	.224	6,983	1,914		
		1915		.256				
		Total	253,338.59	.222	1,139,167	228,385	0.2005	67.0
	Other dimensions and miscellaneous							
	10	1936	261.64	.483	542	347		
		1937	22,061.80	.558	40,613	42,138		
		1938	882.94	.564	1,565	1,171		
		Total	23,806.38	.557	42,720	43,656	1.0210	100.0
33	12	1936	611,480.34	.483	1,266,005	590,292		
		1937	238.49	.558	427	5,029		
		1938	20.33	.564	36	24		
		Total	611,739.16	.483	1,296,468	565,942	4.669	100.0
34	16	1936	229.47	.483	475	162		
		1937	63,273.24	.558	113,394	53,886		
		1938	708.25	.564	1,256	540		

20	Total	64,210.96	557	115,124	54,498	4754	100.0
1906		620.08	483	1,284	342		
1907		1,964.24	558	3,520	1,065		
1908		59.83	564	106	33		
Total		2,644.15	509	4,910	1,470	2964	100.0
Other dimensions and miscellaneous		17,477.44					
		719,878.09					

33 Having developed the number of feet of main installed per hour, it was next sought to determine the cost per foot to install main of each size. This is done in Table 12 by dividing the average hourly wage rates by the number of feet installed per hour.

The hourly wage rates used for the 1911-15 period in Table 12 are the weighted averages derived from the five annual rates used to develop the trend factors of Exhibit No. 20. The hourly wage rate used for 1938 in that table, i. e., \$0.564, is the 1938 wage rate used to develop the trend factors of Exhibit No. 20, corrected to include social security taxes for that year. (See Appendix G.) The 1938 costs are based upon the man-hour productivity of 1936, 1937, and 1938, at 1938 wage rates, the performance of three years being used because Mains-Construction in 1938 was only \$3.563, which was inadequate for the purpose of developing typical costs. The cost per foot to install main in the 1911-15 period is best compared with the 1938 cost by means of the ratios in Column F. These ratios, unlike the trend factors used in Exhibit No. 20 which are based on hourly wage rates only, reflect not only hourly wage rates but man-hour productivity as well.

34 TABLE 12.—Mains—Construction—Determination of cost to install 10-, 12-, 16-, and 20-inch main per foot, exclusive of overheads, for the years 1911-15 and 1938

Period	Main dimension in inches	Average hourly wage rates (table 13)	Feet installed per hour (table 13)	Cost to install per foot	Ratio of cost per foot (1938 to 1911-15)
(A)	(B)	(C)	(D)	(E) (C ÷ D)	(F)
1911-15	10	\$0.229	0.5821	\$0.413	74.9
	12	.220	.6027	.546	41.3
	16	.225	.2003	1.075	90.7
	20	.222	.2005	1.107	58.8
1938	10	.564	1.0219	.552	100.0
	12	.564	1.4460	1.262	100.0
	16	.564	1.4734	1.190	100.0
	20	.564	1.2694	1.284	100.0

1 Performance of 1936, 1937, and 1938 used for purpose of comparison.

### 35 Analysis of \$3,244,145 of Typical Construction.

The second study of Mains-Construction is based upon an analysis of large, typical installations of 10-, 12-, and 20-inch main. These sizes were chosen for analysis because they represent a predominant amount of the footage and cost in the Mains-



**Construction Account.** The jobs analyzed represent \$3,244,145 of costs and 3,294,595 feet of main. The analysis was made from data contained in the company's Mains Lines Inventory Ledger. It includes all large typical installations undertaken during the period of the company's existence from 1898 to 1938, inclusive.

The study was made simply to determine whether the number of feet of main laid per man-hour was greater or less in recent years than it had formerly been. To reach a sound conclusion in this matter an analysis of a great many feet of installation had to be made, for a true trend in productivity could be clearly established only by comparisons based on great quantities of installation. The requirement was met by analyzing all large, typical construction jobs of the three sizes of main most frequently occurring in the company's system and then tabulating the results into two chronological groups, construction completed prior to December 31, 1924, and Construction completed subsequent to December 31, 1924. The cleavage was made at December 31, 1924, because the year 1924 marked the end of the ten-hour day (See

Appendix F) and the beginning of the eight-hour day which it was thought might in the long run have an effect on man-hour productivity. This date also served to divide the period examined into two large spans of years in each of which many feet of main were installed.

The results of the analysis are shown in Table 13. This tabulation gives by job the number of feet of 10-, 12-, and 20-inch main installed per man-hour and clearly indicates the calculation by means of which this information was determined. The average hourly wage rates used in the calculation (Column E) are the wage rates that underlie the factors used to trend the account in Exhibit No. 20.

The "cost to install" figures shown in Column D of the table are in some instances the result of allocations of total costs of main installation jobs. Allocations of job costs had to be made in those instances where more than one dimension of main had been installed. They were made on the basis of cubic yards of excavation per trench foot, as established by Mr. Antonelli. (See appendix H.) Since the portion of job costs excluded from Table 13 is less than 5 percent except for three jobs, the effect of the allocations on results is not great; in most instances the amount allocated was less than 1 percent.

Table 14 is a recapitulation of the figures shown on Table 13. It is to be noted that the number of jobs analyzed for 10-, 12-, and

20-inch main were 21, 14, and 5, respectively, and that, in the order given, the years they cover range from 1905 to 1931, 37 from 1910 to 1936, and from 1911 to 1925. In other words, the analysis of 10-inch main covers the greatest number of jobs and the longest period, and the analysis of the 20-inch main the least number and the shortest period.

38 TABLE 13.—Mains—Construction—Determination of the number of feet of 10-, 12-, and 20-inch main installed per man-hour in the years prior and subsequent to Dec. 31, 1924

## 10-INCH

Year installed	Line number	Feet of pipe installed	Cost to install	Average hourly wage-rate (Appendix G)	Man-hours expended	Feet of main installed per man-hour
(A)	(B)	(C)	(D)	(E)	(F) (D ÷ E)	(G) (C ÷ F)
1905.....	1 13	107,950	\$41,021	\$0.192	213,652	0.5033
1905.....	1 18	92,689	45,846	.192	238,782	.3882
1908.....	1 27	90,167	28,060	.212	132,361	.6812
1908.....	1 28	97,944 <sup>1</sup>	30,211	.212	142,505	.6873
1910.....	1 48	19,739	9,301	.215	43,262	.4563
1910.....	1 51	40,171	17,933	.215	83,411	.4619
1910.....	1 52	85,398	31,628	.215	147,111	.5805
1911.....	1 42	1,497	713	.219	3,258	.4590
1912.....	1 55	254,630	166,269	.220	755,770	.3369
1912.....	1 68	70,127	26,862	.220	122,102	.5741
1913.....	1 4	14,336	8,564	.225	38,064	.3769
1914.....	1 79	6,141	1,884	.224	8,415	.7289
1916.....	1 107	16,463	8,689	.244	35,614	.4625
1920.....	1 128	32,986	64,591	.389	158,333	.3346
1921.....	1 139	6,992	8,296	.330	25,140	.2783
Prior to 12/31/24.....		957,230	486,874	.227	2,147,780	.4457
1925.....	1 166	33,704	398,794	.412	96,588	.3489
1925.....	1 162	10,150	9,765	.412	23,792	.4282
1927.....	1 177	3,252	1,804	.440	4,101	.7690
1929.....	1 180	26,773	8,971	.440	20,390	1.3133
1929.....	1 181	50,305	25,263	.440	57,416	.8760
1937.....	1 200	39,192	19,948	.558	35,752	1.0960
Subsequent to 12/31/24.....		163,376	105,547	.444	237,949	.6866

<sup>1</sup> Indicates screw joint.

<sup>2</sup> Indicates dresser coupled joint.

<sup>3</sup> Maximum.

<sup>4</sup> Minimum.

38 TABLE 13.—Mains—Construction—Determination of the number of feet of 10-, 12-, and 20-inch main installed per man-hour in the years prior and subsequent to Dec. 31, 1924—Continued

39

## 12-INCH

Year installed	Line number	Feet of pipe installed <sup>1</sup>	Cost to install	Average hourly wage-rate (Appendix G)	Man-hours expended	Feet of main installed per man-hour
(A)	(B)	(C)	(D)	(E)	(F) (D ÷ E)	(G) (C ÷ F)
1910	<sup>1</sup> 32	60,664	\$50,068	\$0.215	232,874	0.2605
1910	<sup>1</sup> 39	82,676	59,454	.215	234,671	.3523
1911	<sup>1</sup> 42	198,101	60,860	.219	277,903	.3890
1912	<sup>1</sup> 57	161,672	91,809	.230	417,588	.3872
1913	<sup>1</sup> 4	14,055	9,924	.225	44,107	.3187
1923	<sup>1</sup> 151	60,336	74,937	.329	227,774	.2649
1923	<sup>1</sup> 154	30,825	28,098	.329	85,407	.3609
1924	<sup>1</sup> 156	64,079	71,614	.383	186,084	.3427
1924	<sup>1</sup> 32	25,900	20,247	.383	52,866	.4899
1924	<sup>1</sup> 117	99,129	78,144	.383	204,034	.4858
Prior to 12/31/24		707,437	536,220	.273	1,964,208	.3602
1925	<sup>1</sup> 8	48,815	31,186	.412	75,696	.6449
1925	<sup>1</sup> 166	22,157	30,928	.412	75,070	.2952
1926	<sup>1</sup> 193	58,396	30,170	.483	62,466	.9348
1926	<sup>1</sup> 192	501,883	572,027	.483	1,184,322	.4238
Subsequent to 12/31/24		631,251	664,314	.475	1,397,554	.4517

40

## 20-INCH

1911	<sup>1</sup> 45	125,897	\$132,148	\$0.216	603,416	0.2086
1913	<sup>1</sup> 4	100,534	133,325	.225	592,558	.1697
1916	<sup>1</sup> 106	104,365	143,333	.244	587,433	.1777
1924	<sup>1</sup> 155	80,619	134,143	.383	350,244	.2302
Prior to 12/31/24		411,415	542,950	.254	2,133,651	.1928
1925	<sup>1</sup> 162	423,886	908,240	.412	2,204,467	.1923

<sup>1</sup> Indicates screw joint.

<sup>2</sup> Indicates dresser coupled joint.

<sup>3</sup> Maximum.

<sup>4</sup> Minimum.

<sup>5</sup> Indicates welded joint.

41 TABLE 14.—*Mains—Construction—Comparison of feet of 10-, 12-, and 20-inch main installed per man-hour subsequent to and prior to Dec. 31, 1924*

Dimension of main in inches	Mains installed subsequent to or prior to Dec. 31, 1924	Span of years	Number of jobs	Number of feet installed	Cost to install	Feet of pipe installed per man-hour		
						Average	Maximum	Minimum
10.....	Subsequent.....	1925-1937	6	163,376	\$105,547	0.6866	1.3131	0.3490
	Prior.....	1903-1921	15	957,230	486,874	.4457	.7298	.2701
	Increased productivity per man-hour in later period.....					.2409	.5832	.0708
12.....	Subsequent.....	1925-1936	4	631,251	664,314	.4517	.9348	.2937
	Prior.....	1910-1924	10	707,437	536,220	.3602	.4899	.2403
	Increased productivity per man-hour in later period.....					.0915	.4449	.0347
20.....	Subsequent.....	1925	1	423,886	908,240	.1923	.1923	.1923
	Prior.....	1911-1924	4	411,415	542,950	.1928	.2302	.1697
	Increased productivity per man-hour in later period.....					(.0005)	(.0379)	.0228

42

## MAINS-EQUIPMENT

Mains-Equipment is the largest of the company's accounts chargeable with equipment costs. Primarily, it contains the cost of pipe, valves and fittings that go into main lines. From an Original Cost of \$10,225,450, this account was trended to \$13,360,169; an amount \$3,134,719 or 30 percent in excess of that Original Cost.

In the exposition of this account, which follows, the factors used to trend its Original Cost in Exhibit No. 20 are explained, the points of difference between this account and the Well-Construction and Mains-Construction Accounts are noted, the inherent fallacy of the factors used to trend this account are pointed out, and finally, a comparison of pipe prices adjusted to reveal the effect of the trend with the pipe prices shown in the Estimated Cost of Reproduction New offered by Mr. George I. Rhodes for the Company, is presented. The comparison conclusively shows the error of the trending.

### *The Development of the Trend Factors.*

The mechanics by which trending was accomplished need not again be discussed; they are the same for this account as for Well-Construction and Mains-Construction. Attention may be immediately directed to the basis for the trend factors.

The data underlying Exhibit No. 20 show that the factors developed to trend Mains-Equipment are composites derived  
43 by combining a Fittings Trend and a Line-Pipe Trend weighted in the ratio of  $13\frac{1}{2}$  and  $86\frac{1}{2}$  percent, respectively, for each of the years from 1892 to 1938 (See Appendix I). The Fittings Trend was derived from a weighting of couplings and clamps and other materials, in the ratios of 89,  $51\frac{1}{2}$  and  $51\frac{1}{2}$  percent, respectively, and the Line-Pipe Trend from the arithmetical average of the cost per ton each of 2, 3, 4, 6, and 8 inch pipe. Since the Line-Pipe Trend is given a weighting nearly equal to seven-eighths of the whole, its examination is of uppermost importance.

The Line-Pipe Trend for the period prior to the year 1900 was based upon the price of wrought iron pipe; for the period 1900 to 1902, upon the price of steel pipe; and for the years subsequent to 1902, upon the price of steel screw pipe, f. o. b. destination. Where possible the prices used were those paid by the Hope company, but in many instances they were not, as a photostatic copy of the work sheet for 2-inch pipe reproduced here as Appendix J, shows. The company purchased no 2-inch pipe after 1915, yet a price for that size of pipe continued to be used in developing the yearly trend factor for the years 1915 to 1938. That price was the price paid by Peoples Natural Gas Company, an affiliate of the Hope company, or a price developed by interpolation.

The trending of Mains-Equipment, being a trending of material costs, presented a somewhat different problem for examination than the trending of Producing Gas Wells-Well Construction and  
44 Mains-Construction. In the case of those accounts the ques-

tion raised was that the man-hours expended in years prior to 1938 were not the equivalent of the man-hours of 1938 and that, therefore, those accounts should not be trended by factors based upon hourly wage-rates alone. A question similar to that, as to whether the material purchased in the years prior to 1938 is the equivalent of material purchased in 1938, might also be raised (The United States Steel Corporation indicate a substantial improvement has been accomplished in the making of steel pipe—See Appendix K), but it is not susceptible of quantitative proof.

and has not been pursued. The examination into the propriety of the factors used to trend Mains-Equipment has been confined to the question of whether the prices of the sizes upon which the Line-Pipe Trend were predicated are representative of pipe actually charged to the account.

Table 15 shows that about 5 percent of the cost in the Mains-Equipment Account represent mains 8 inches or less in diameter and that the remaining 95 percent of the cost represents mains ranging from 10 to 20 inches in diameter (Appendix I). Since the Line-Pipe Trend is based on averages of the price of 2, 3, 4, 6, and 8 inch pipe only, it clearly is not representative of the account. Notwithstanding this fact, the trend might nevertheless be acceptable if prices for all sizes of pipe had fluctuated throughout the years in unison and to the same degree, but this does not appear to have been the case.

45 TABLE 15.—Mains—Equipment—Main line 8 inches and less in diameter and greater than 8 inches in diameter, as at Dec. 31, 1938—Total book cost and reproduction cost new per Rhodes' appraisal

	Book cost <sup>1</sup>	
	Amount	Percent
Lines 8 inches and less .....	\$433,943	5.2
Lines greater than 8 inches .....	7,839,825	94.8
	8,267,768	100.0
	Rhodes' appraisal <sup>2</sup>	
	Amount	Percent
Lines 8 inches and less .....	\$487,781	5.6
Lines greater than 8 inches .....	8,161,815	94.4
	8,649,596	100.0

<sup>1</sup> For details see Appendix I.

<sup>2</sup> For details see pp. 200-2, Part D, Exhibit 16.

46 *Comparison of Prices Paid for Pipe.—Trended with Prices per Rhodes' Appraisal.*

Table 16 is a comparison of the price per foot of pipe 10 to 20 inches in diameter as determined from actual purchases, trended per Exhibit No. 20, and as shown in the company's Reproduction Cost New Appraisal presented by Mr. Rhodes (Exhibit No. 16, Part D). In this table are listed, in the aggregate



amount of \$7,808,500, sixty important purchases of pipe, of which the earliest was made in 1902 and the latest in 1936. The price per foot of each purchase trended is compared individually with the price for the same size and kind of pipe as shown in the Rhodes' Appraisal.

The price per foot trended per Exhibit No. 20 was obtained by dividing the average actual cost per foot for pipe, f. o. b. destination, with the Line-Pipe Trend factor (Appendix I) for the year in which the purchase was made. The Line-Pipe Trend factor is precisely appropriate for this purpose since it is the component of the composite trend factor used in Exhibit No. 20 that reflects the changes in pipe prices.

The comparison shows that the actual cost trended is higher than the Rhodes' price in all instances save one. The exception was a purchase made at a special discount. As Column L of Table 16 indicates, the excess of cost trended over the Rhodes' price is in most instances a large one.

47 TABLE 16.—Mains—Equipment.—Cost of important purchases of main line pipe trended to 1938 prices by means of Exhibit No. 20 line-pipe trend factors and then compared with Rhodes' reproduction cost new appraisal prices 1902-38.

[Source of basic data: Work sheets underlying Exhibit No. 20]

Source	Book	Page	Year of purchase	Size and type of pipe		Number of feet	Cost f. o. b. destination		Exhibit No. 20 line-pipe trend factor (Appendix D)	Average cost per foot trended	Pipe cost per foot f. o. b. destination per Rhodes' reproduction cost, new appraisal	Excess of pipe cost per foot as trended over Rhodes price per foot	
				Diameter (Inches)	Type		Total	Average cost per foot				Amount	In percent of Rhodes appraisal prices
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)
1	28	10	1902	41.85	Screw	11,692.5	\$14,965.97	\$1.2651	70.1	\$1.7191	\$1.4650	\$0.2541	17
1	31	42	1902	49.56	P.E.	35,777.9	49,015.43	1.3700	70.1	1.9544	1.8420	.3124	19
1	45	10	1903	41.85	Screw	73,721.9	91,183.57	1.2509	68.1	1.6163	1.4650	.3513	24
1	49	12	1903	40.56	P.E.	55,908.8	76,979.64	1.3709	68.1	2.0219	1.6420	.3799	23
1	58	18	1903	70.58	P.E.	117,600.11	301,038.14	2.5649	70.1	3.65519	2.5000	1.1429	46
1	66	16	1903	62.57	P.E.	281,080.0	520,864.91	1.8541	68.1	2.7211	2.1900	.5251	24
1	81	18	1903	70.58	P.E.	121,612.11	310,876.18	2.5363	68.1	3.1337	2.5000	.6337	50
1	105	10	1904	40.48	P.E.	174,369.0	190,010.37	1.0807	61.6	2.9211	1.7680	1.1447	36
1	107	16	1904	62.57	P.E.	147,433.4	265,401.88	1.7904	61.6	3.9692	2.1900	.7251	33
1	108	18	1904	70.58	P.E.	93,642.3	228,954.30	2.4450	61.6	3.9692	2.5000	1.4692	58
2	044	10	1907	41.85	Screw	45,181.8	52,171.95	1.1462	59.3	1.9329	1.4650	.4679	32
2	045	12	1907	40.56	P.E.	10,017.4	13,924.04	1.3900	59.3	2.3440	1.6420	.7020	43
2	057	18	1907	70.58	P.E.	98,566.14	226,777.47	2.3000	59.3	3.8766	2.5000	1.3066	55
3	52	10	1909	40.48	P.E.	33,826.0	27,546.84	1.1100	57.8	1.9204	1.2980	.6224	48
3	54	12	1909	40.56	P.E.	5,464.8	7,067.16	1.2622	57.8	2.2774	1.6420	.5953	36
3	117	10	1910	22.86	P.E.	107,358.6	57,488.58	.5355	55.3	.9084	.7910	.1174	48
3	121	10	1910	34.24	P.E.	51,408.8	48,984.32	.9528	55.3	1.7230	1.1020	.6210	56
3	128	10	1910	40.48	P.E.	64,142.9	70,159.39	1.0938	55.3	1.9779	1.2980	.6799	52
3	125	10	1910	42.05	P.E.	11,912.3	13,802.54	1.1587	55.3	2.0653	1.5320	.5633	37
3	145	20	1910	65.70	P.E.	117,356.4	190,117.47	1.6200	55.3	2.9285	2.3380	.5915	25
4	76	101D	1911	34.24	P.E.	13,527.11	11,784.19	.8711	55.4	1.5724	1.1020	.4704	43
4	89	121D	1911	43.77	P.E.	48,088.3	51,807.30	1.0785	55.4	1.9468	1.4570	.4898	34

4	96	1911	20	PE	65.70	8,521.8	13,805.11	-1,0380	55.4	2,9242	2,3380	15662	26
5	59	1912	10	PE	28.03	83,990.7	49,535.02		50.3	1,1726	9710	2016	21
5	71	1912	16	PE	42.05	140,554.5	84,697.47	7661	50.3	1,5271	1,5300	3,0089	
5	72	1912	16	PE	52.35	5,650.9	6,324.66	1,1162	1,1162	2,2252	1,8370	3882	31
5	78	1912	20	PE	65.70	43,240.2	67,943.03	1,5713	50.3	3,1259	2,3380	7859	34
6	76	1913	10 <sup>3</sup> OD	PE	28.03	38,118.2	21,615.73	5679	54.0	1,1173	9710	1425	15
6	83	1913	10	PE	40.48	36,372.4	20,762.06	8183	51.0	1,6046	1,2680	3066	24
6	93	1913	12	Screw	51.15	16,382.8	18,243.93	1,1136	51.0	2,1835	1,8450	3385	18
6	120	1913	20	PE	65.70	56,592.3	79,792.79	1,4100	51.0	2,7647	2,3380	4257	18
6	125	1913	20	Screw	40.40	3,546.0	10,607.75	2,9615	51.0	5,8657	4,3550	1,3391	29
7	33	1914	10 <sup>3</sup> OD	PE	28.03	12,002.6	6,090.24	3969	49.2	1,0161	9710	10451	05
7	19	1915	10 <sup>3</sup> OD	PE	28.03	14,380.8	7,305.36	5080	47.5	1,0095	9710	1065	10
48	7	1915	1011D	PE	28.035	31,527.11	16,541.79	5240	47.5	1,1032	9710	1322	14
8	236	1916	10 <sup>4</sup>	PE	28.035	212,900.7	165,252.74	7761	62.7	1,2378	9710	2698	27
8	266	1916	16	PE	42.05	32,975.8	51,576.85	1,5641	62.7	2,4946	1,5320	9626	63
8	272	1916	20	PE	65.70			2,3000	62.7	3,5068	2,3380	1,1708	50
9	152	1917	10 <sup>4</sup>	PE	28.035	54,257.3	61,686.75	1,1369	87.0	1,3068	1,5320	3358	35
9	168	1917	16	PE	42.05	5,319.0	8,417.09	1,5825	87.0	1,8190	1,5320	2870	19
10	116	1918	10	PE	28.03	166,797.4	251,498.59	1,5078	112.8	1,3367	9710	3657	38
11	16	1920	20	PE	65.70	4,747.1	16,926.12	3,5656	112.2	3,1779	2,3380	8399	36
11	21	1921	16	PE	52.35	151,627.6	324,826.41	2,1437	111.5	1,9226	1,8370	6856	05
11	11	1923	12 <sup>4</sup>	PE	41.51	54,010.8	102,170.83	1,8917	99.4	1,9031	1,3650	5381	39
11	17	1923	16	PE	62.57	32,020.2	86,567.23	2,7035	99.4	2,7108	2,1900	5238	24
11	19	1923	16	PE	34.24	60,060.8	87,751.50	1,4610	96.2	1,5187	1,3650	4167	38
11	28	1924	12 <sup>4</sup>	PE	41.51	215,177.0	342,447.08	1,5007	96.2	1,6535	2,3380	2885	21
11	37	1924	20	PE	65.70	94,020.0	283,000.80	3,0104	96.2	3,1263	2,3380	7913	34
11	11	1925	10 <sup>4</sup>	PE	34.24	31,544.1	40,626.21	1,2879	93.2	1,3819	1,1020	2769	25
11	26	1925	10 <sup>4</sup>	PE	41.51	36,435.1	54,642.40	1,4997	93.2	1,6091	1,3650	2441	18
11	47	1925	16	PE	52.35	161,734.3	343,523.50	2,1240	93.2	2,2740	1,8370	4420	24
11	94	1925	20	PE	65.70	490,485.3	-1,375,730.10	2,8048	93.2	3,0604	2,3380	6744	29
11	6	1927	10 <sup>4</sup>	PE	34.24	4,510.7	5,413.58	1,2068	89.7	1,3454	1,1020	2434	22
11	10	1927	18	PE	70.58	5,385.10	14,578.61	2,7098	89.7	3,0176	2,5060	5086	20
11	11	1928	12 <sup>4</sup>	PE	41.51	25,096.6	34,270.22	1,3765	84.4	1,6238	1,3650	2588	19
11	70	1929	10 <sup>4</sup>	PE	34.24	80,408.8	85,767.75	1,6066	87.7	1,2162	1,1020	1142	19

† Lat-weld 1010, unless otherwise noted.

‡ Due to 2 1/2% discount.

47 TABLE 16.—Mains—Equipment.—Cost of important purchases of main line pipe trended to 1938 prices by means of Exhibit No. 20 line-pipe trend factors and then compared with Rhodes' reproduction cost new appraisal prices 1902-36—Continued

[Source of basic data: Work sheets underlying Exhibit No. 20]

Source		Year of purchase	Size and type of pipe			Number of feet	Cost f. o. b. destination		Exhibit No. 20 line-pipe trend factor (Appendix D)	Average cost per foot trended	Pipe cost per foot f. o. b. destination per Rhodes' reproduction cost, new appraisal	Excess of pipe cost per foot as trended over Rhodes' price per foot	
Book	Page		Diameter (Inches)	Type	Weight per foot in pounds		Total	Average cost per foot				Amount	In percent of Rhodes' appraisal prices
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	
11	18	1929	16	PE	52.35	7,511.10	\$13,999.62	\$1.8637	87.7	\$2.1250	\$1.8370	\$0.2880	16
11	20	1929	18	PE	70.58	3,813.4	9,322.09	2.4446	87.7	2.7875	2.5000	.2785	11
11	23	1929	20	PE	78.59	1,534.8	4,355.92	2.8363	87.7	3.2664	2.7900	.4434	16
12	34	1936	12 <sup>3</sup> / <sub>4</sub>	PE <sup>3</sup>	41.51	131,571.4	178,010.22	1.3630	91.6	1.4771	1.4210	.0561	4
12	57	1936	12 <sup>3</sup> / <sub>4</sub>	PE <sup>3</sup>	49.56	377,364.11	623,840.92	1.5532	91.6	1.8048	1.7100	.0948	6

<sup>3</sup> Seamless, Pintola coated.

## 49. OTHER ACCOUNTS

The three sections of this report that immediately precede this one are devoted to three of the eight plant accounts listed in Table 1; this section is devoted to the remaining five, which represent plant of an Original Cost of \$30,980,563 that was trended to \$42,243,237. No analysis of these five accounts was made. A brief explanation of the basis upon which they were trended follows.

### *Producing Gas Wells—Well Equipment.*

Producing Gas Wells—Well Equipment was increased in the amount of \$2,495,792 by trending, from an Original Cost of \$8,168,191 to \$10,663,983. The series of factors employed to trend the account were composites made up of a Casing and Tubing Trend and a Closing-in Equipment Trend weighted in the ratios of .957 and .043, respectively. The trending for casing and tubing from 1902 to 1938 was based on the arithmetical average trend of a ton each of 2- and 3-inch tubing and 6 $\frac{3}{4}$ -, 8 $\frac{1}{4}$ -, and 10-inch casing as determined primarily from the average delivered prices paid by the company. Where prices were not available from company records, supplementary prices were used.

### *Field Lines—Construction.*

\$2,962,099 by trending, from an Original Cost of \$4,076,877 to \$7,038,970. The factors used to trend this account are the same as those used to trend Mains—Construction.

### *Field Lines—Equipment.*

Field Lines—Equipment was increased in the amount of \$2,225,387 by trending, from an Original Cost of \$8,279,385 to \$10,505,272. Like the factors used to trend Mains—Equipment, the factors developed for this account are composites consisting of Pipe Trends and Fittings Trends weighted in the ratios of .865 and .135, respectively. The Pipe Trends are the same as those used to develop the Trend Factor for Mains—Equipment; the Fittings Trends are different. The composite trend factors for both accounts are similar in amounts. For the years subsequent to 1910 they never vary more than 1.0%, except for 1913 when the difference between them is 1.1%.

### *Compressor Station Structures.*

Compressor Station Structures was increased in the amount of \$686,840 by trending, from an Original Cost of \$1,811,605 to

\$2,498,445. This account includes both labor and material costs in proportions not readily ascertainable. Its trend factors are predicated upon the pricing of four structures, each typical of a different kind of construction, priced for each year to reflect the prevailing labor and material costs of that year.

51 *Compressor Station Equipment.*

Compressor Station Equipment was increased in the amount of \$2,892,556 by trending, from an Original Cost of \$8,644,011 to \$11,536,567. This account includes both labor and material costs in proportions not readily ascertainable. Its trend factors are predicated upon a pricing of equipment in five stations, each typical of a different kind of equipment, priced for each year to reflect the prevailing labor and material prices of that year.

52

Summary

The Original Cost revised of the company's plant as presented in Exhibit No. 20, which amounts to \$69,735,637, is trended in that Exhibit by means of factors to \$105,101,912, purportedly for the purpose of translating it into its equivalent at "1938 prices." Most of the increase, which amounts to \$35,366,275, is contained in several of the company's thirty-two plant accounts and three of them were chosen for detailed examination. Two of the three selected contain labor costs and one material costs, and combined they account for more than two-thirds of the increase due to trending. Other large accounts were also examined, cursorily, and they were found to have been trended in much the same manner as the three to which greater attention was paid.

The trend factors of the three accounts chosen for examination were first studied to get a full understanding of their formulation and composition and then the accounts themselves were analyzed. The study of the trend factors revealed that their application, in each instance, might produce quite distorted results and the analyses of the accounts were undertaken to obtain data for tests by means of which it could be determined whether or not this was so.

Five tests embracing substantial amounts of construction were made and are here presented. They thoroughly demonstrate that the trend factors far overreach reasonable bounds. In the

53 case of Producing Gas Wells-Well Construction and Mains-Construction which are labor cost accounts, their unreli-



ability was found to rest in their predication upon hourly wage-rates only, to the neglect of hourly productivity which is greater in 1938 than in earlier years. In the case of Mains-Equipment, a material-cost account, their unreliability rests in their being based upon the cost of material not representative of the materials actually charged to the account. The trending of the labor costs capitalized, at 1938 hourly wage-rates, many more man-hours than would actually be expended to construct the property in 1938, in the manner and with the personnel of that year. The trending of the material costs produced too high a result because the material trend factors were based upon the prices of materials whose prices had risen relatively higher by 1938 than had the prices of the materials truly representative of the items actually charged to the accounts.

All of the tests presented were prepared from data compiled from Exhibit No. 20, the working papers and records that support it, or from Rhodes' Appraisal. This implies that the figures for 1938 which have been used in the comparisons are from these sources also, and they are. Their use in the circumstances was desirable and necessary; it does not signify their acceptance as a true guide to value or for any other purpose.

Finally it should be noted that if the intangible production costs previously charged to expense by the company do not represent a proper element of original cost, they do not represent a proper element of original cost trended. Many millions of dollars of such items are included in the trended figures.

54 VICTOR G. GOUGH,  
Victor G. Gough,  
*Chief Examiner of Accounts.*

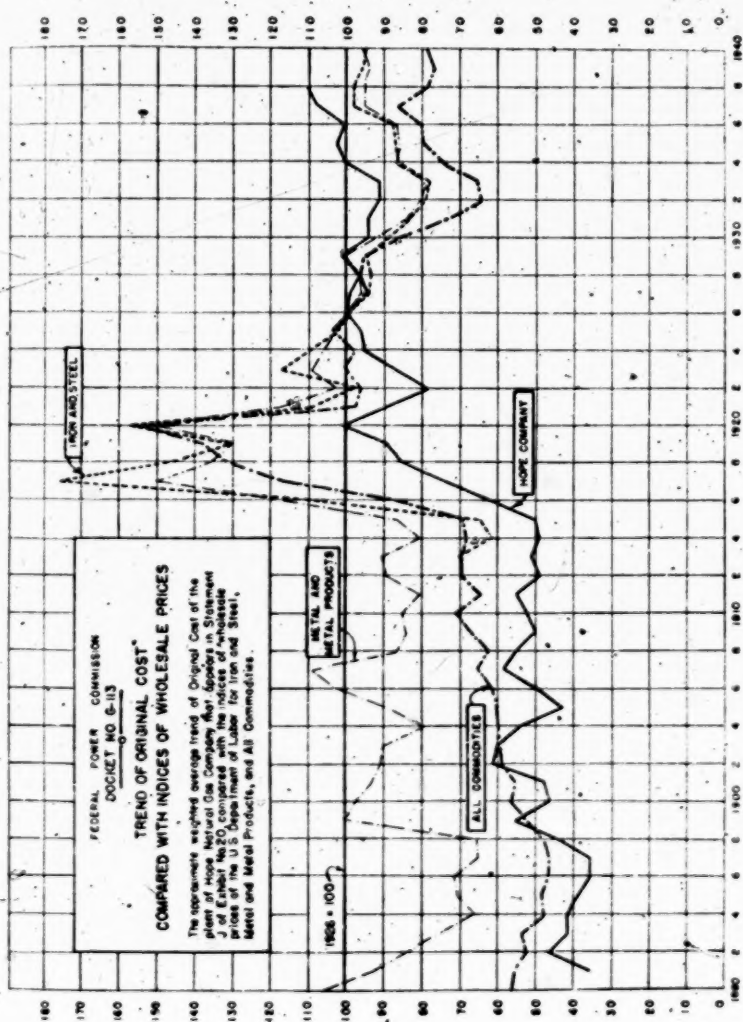
WASHINGTON, March 31, 1941.

Approved:

CHAS. W. SMITH,  
Chas. W. Smith,  
*Chief, Bureau of Accounts, Finance, and Rates.*

[Appendix pages 55 to 78 omitted.]

1 EXHIBIT NO. 74-A.—TREND OF ORIGINAL COST COMPARED WITH INDICES OF WHOLESALE PRICES, F. P. C. WITNESS GOUGH



**EXHIBIT NO. 43.—ESTIMATED RECOVERABLE GAS RESERVES AND PAST PRODUCTION OF THE HOPE NATURAL GAS COMPANY AS OF DEC. 31, 1938, VOLUME I,  
F. P. C. WITNESS ROSS**

[Pages I to III omitted]

**WRITTEN STATEMENT**

**INTRODUCTION**

This report presents an estimate of the developed, recoverable natural gas reserves and past production of the operated fee lands and leaseholds of the Hope Natural Gas Company as of December 31, 1938. It consists of three volumes.

Volume I comprises a statement of the conclusions drawn from an exhaustive study of the recoverable gas reserves and past production of the company, the source of the data used, and the procedure followed, with sample illustrations.

Volume II is primarily a statistical section containing a summary in which are given by geographical pool or producing areas: (1) The estimated production prior to 1913, (2) the production by years from 1913 to 1938, inclusive, and (3) the estimated future recoverable gas reserves. This summary is preceded by a recapitulation showing the same information in very condensed form.

Volume III contains summaries in which are analyzed in detail by geographical sand pools the estimated gas reserves which are recoverable from (A) present drilled wells, (B) from deeper sands in present drilled wells, (C) from additional locations on operated acreage, and (D) from additional locations on "In Lieu of Drilling" acreage.

There is included as an appendix of Volume I a tabulation entitled "Present Drilled Wells" showing a list of present drilled wells of the company as of December 31, 1938, included in this estimate of the remaining gas reserves.

There is also included as an appendix of Volume I, a similar tabulation entitled "Dead Wells on Active Acreage," showing a list of those wells of the company, which had been either sold

or abandoned prior to December 31, 1938, but which were located on acreage that was still operated on December 31, 1938.

2 Affixed to Volume III as Appendix i of this exhibit is a tabulation "Summary of the Operations of Gas Storage Projects."

#### DATA USED IN THE STUDY.

##### *Source of Data.*

The operating records of the Hope Natural Gas Company were the principal source of the information used in the preparation of this exhibit. These records include well data cards maintained by the engineering department, production and pressure data filed in the production department, well pockets containing field tickets, and miscellaneous information kept in the general files, and a report compiled by Mr. Ralph E. Davis in 1924. Reference has also been made to the records and maps of the United States Geological Survey and certain West Virginia State agencies.

##### *Well Data.*

Basic factual information concerning annual production, rock pressures, and general history of each sand that produced gas in each well was transcribed separately from the company's records to a well-data sheet prepared by engineers of the Federal Power Commission. A sample form of this sheet is illustrated on the following page. On this data-sheet were entered such information as the name of the company's operating district, county, well number, farm name, lease number, map index, producing formations, total depth, date of completion or purchase, date of abandonment, elevation of well if known, initial production and initial rock pressure. Deepening or plugging-back data and other pertinent information, appearing on the back of the well cards, were entered under "Remarks." The compilation of these data by sands or casing or tubing strings involved some 14,000 pages of basic information pertinent to the gas reserve study.

##### *Production Data.*

As a general rule, the Hope Natural Gas Company does not meter the production of gas from its wells or leases. The company does have, however, a number of leases in which  
4 [page 3 omitted] the royalty payments are made on a volumetric basis and from which gas is metered.

In the absence of meters the company calculates the production of its wells by the "minute-rise" formula. This method of gas measurement, which is used generally throughout the Appalachian region, is predicated on the theory that the rise in pressure per minute after a producing well is closed indicates the rate at which gas was producing in that well prior to closing it in. This method uses the volume of the casing or tubing as a unit of measure and, with the application of Boyle's law, reflects the volume of gas produced under operating conditions at the time of the test.

Although the company began taking minute-rise tests in 1913 of all its wells, the volumes were not computed until 1924, when Mr. Ralph E. Davis, Consulting Engineer and Geologist, was engaged to establish depletion and depreciation rates of the producing properties for Federal income tax purposes. Since 1924 the company has calculated production annually.

Since the annual calculated production of all wells of the Hope Natural Gas Company represents the only available information as to volumes of gas produced, these volumes of calculated production have been accepted by engineers and geologists of the Federal Power Commission as being based upon minute-rise tests, and utilized by them in the computation of the gas reserves. These volumes were transcribed from the company's record to the well-data sheets previously described, by years, from 1913 through 1938. There was also tabulated in connection with the production the number of days that each well was open to the pipeline system, which represents the utilization of each well.

#### *Rock Pressures.*

The Hope Natural Gas Company recorded the rock pressures or well-head pressures of its wells once a month and made an annual rock pressure test on all wells during periods of minimum production. Generally, these annual tests were made during the latter part of August or the fore part of September. A study of the rock pressure histories indicated that the annual tests more closely reflected the actual reservoir pressures, because at the time of the year these tests were made, the wells had experienced  
 5 a longer shut-in period, thus allowing for a more perfect equalization of pressure in the producing formations.

Furthermore, as stated by representatives of the company, greater care was exercised in making the annual tests than those made during the year when the wells were being operated at

greater capacity. For these reasons the annual rock pressures were utilized in estimating the gas reserves. In a few instances, however, where the annual pressures were not available, or appeared unreasonable, the monthly tests were used or the pressures were determined by interpolation.

#### *Maps.*

All maps used in the preparation of this report are based upon those provided by the Hope Natural Gas Company. These included principally a set of leasehold maps showing the location of operated and unoperated leaseholds and all wells ever owned by the company, and a set of working district maps showing pipe lines and well locations. Both sets of maps are of the approximate scale of two inches to one mile and show the company's coordinate grid system which provides an index to the well locations. The company's leasehold maps, reduced by photographic reproductions to a scale of approximately one inch to one mile, were used for working maps in the preparation of this exhibit.

#### *General Geology.*

The geology of West Virginia has been amply treated in the geological literature, particularly in the county reports of the State Geological Survey of West Virginia. Therefore this subject will be discussed here only briefly.

The natural gas fields of West Virginia are a part of the Appalachian field, which occupies a major geosyncline lying between the Appalachian Mountains on the east and the Cincinnati Arch on the west and extending continuously from the State of New York southwestward to Alabama. The sedimentary beds lying within this geosyncline have been subjected to intense folding which has resulted in the formation of anticlines and synclines whose axes are roughly parallel and extend in a general northeast-southwest direction. The West Virginia gas fields are closely related to the fields of Pennsylvania, Ohio, Kentucky, and Tennessee in that the mode of occurrence and accumulation of gas is largely similar, and the formations or horizons that produce gas are common to these states.

6 The major gas-producing horizons in West Virginia are of Pennsylvania, Mississippian, and Devonian age. The principal productive horizons from which the Hope Natural Gas Company obtains gas are the Salt, Maxon, Big Injun, Gantz, Berea, Fifty Foot, Thirty Foot, Gordon Stray, Gordon, Fourth,



Fifth, Speechley, and Benson Sands. Possibly with the exception of the Big Injun these sands are lenticular in character and exhibit considerable variation in porosity and permeability. Largely because of this and because of the absence of water generally, the gas occurs in synclines and on terraces as well as on the flanks and crests of anticlines. In fact, porosity and permeability are perhaps the two most important factors controlling the accumulation and production of gas from producing sands of West Virginia. This condition is characteristic of the producing formations of the Appalachian region and accounts in a large measure for the "spotted" areas of production.

#### PROCEDURE OF ESTIMATING GAS RESERVES

Although the majority of the Hope Natural Gas Company's wells are located in the northern half of the oil and gas producing region of the State of West Virginia, these wells are scattered throughout that area and do not form any one, single, continuous block of property. The producing properties of the company have ranged, and do range, in occurrence from one single well isolated miles from the nearest company well to groups of contiguous wells ranging in number from 2 to more than 500.

From a careful preliminary examination of the company's leasehold and operating maps and of the records of the wells drilled thereon, it was found impracticable to estimate the reserves underlying the company's properties as a unit, not only because of the scattered geographical location of the wells referred to above, but also because there are some 30 producing sands in West Virginia and very few of these sands extend continuously or are productive throughout the entire area or areas in which the company's properties are located.

Accordingly, it was deemed expedient for the practical purpose of preparing this reserve study to make a reasonable territorial grouping and segregation of portions of the State of West Virginia encompassing the company's producing properties into 27 units or areas. These 27 units have been termed "pool sheets." The basis underlying the division of the company's producing territory into these 27 "pool sheets" is purely one of convenience with the label meaning only that such area is involved in the determinations covered by this exhibit.

The company's gas-producing areas in each of these 27 territorial divisions were carefully studied. The producing horizons were identified from the company well records and the existence

of gas was determined from information customarily kept by natural gas producing companies, such as rock pressures, open flow tests, and records of production. During the course of these investigations it was found that the existence of producing wells proved that certain productive horizons extended over greater areas than others, that the limits of the production of gas in a given horizon had been defined in certain directions by the drilling of nonproductive wells. It was further found that in other directions the horizon had proved productive of gas at one or more other locations on company acreage. The occurrence of conditions of common pressures, and common characteristics of production existing in the wells in these areas and common formations providing the source of supply for the company's wells established a sound basis for a careful geological study of the areas adjacent to those wells.

It was found that there were many correlative characteristics pertaining to the wells in certain areas. Those wells had as their common dominant characteristic the fact that they depended upon the same sand or sands for their supply of gas and were dependent in varying degrees upon the same source of gas. The configurations of the "sand pools" were thereby defined by the natural occurrence of the supply of gas for the wells of the Hope Natural Gas Company.

As the investigations of the wells, producing horizons, and areas progressed, it was found that during the course of drilling for and production of gas from various sand pools, such operations had resulted in developing through one well the supply of gas in more than one sand pool. These investigations developed that those sand pools at different horizons were not coextensive one with another, but in some instances overlapped in varying degrees and extended over different areas. This situation gave rise to a further natural grouping of the company wells and acreage into productive areas of greater extent. These larger groupings conformed to the gas-producing areas which have been termed "pool areas."

It was considered that one-half mile was the maximum effective drainage limit of wells in West Virginia, and that  
 8 the use of this distance was not unreasonable for the purpose of estimating weighted average rock pressures by the isobaric method. Accordingly the wells of the Hope Natural Gas Company were grouped in designated geographical areas or "pool areas," the principal determining factor being distance between well locations.

Any well geographically located further than one-half mile from a "pool area" was considered an "Individual Well." And those wells located within the boundary of "pool areas" that have no other wells in that "pool area" producing from the same sand or sands were also considered "Individual Wells." Further, those wells located within the boundary of a "pool area" but further than one-half mile from a "sand pool," were also considered "Individual Wells."

In classifying these wells as "Individual Wells," separately from pool areas, consideration was given to such factors as location, producing sands, geological conditions, producing characteristics, rock pressure histories, and production histories. In the reserve study, each "Individual Well" was treated as a gas-producing unit.

The map presented as part of the proceedings in this case entitled "Map Showing Working Districts, Gas Wells, Pipe Lines, and Compressor Stations as of December 31, 1938," shows in color the designation, geographical location, and extent of each of these "pool areas," together with the location of other productive wells called "Individual Wells." "Sand pools" are not shown on this map because of the mechanical difficulty of reproduction on one map.

#### *Rock Pressure—Production Decline Method*

The proven gas reserves of the Hope Natural Gas Company were estimated by means of the rock pressure-production decline method. This method follows closely an application of Boyle's law for gases, which can briefly be stated as follows: The quantity of gas in a given volume is directly proportional to the absolute pressure, temperature being constant. Its application reflects the future recoverable reserves in underground sand reservoirs by extrapolating the decline of well pressure versus cumulative production.

This method of estimating gas reserves is particularly applicable to West Virginia because of the erratic and lenticular character of the producing sands in that State, and also because of the absence of fluids which ordinarily would affect the accuracy of the method. Furthermore, the volumes of gas produced annually from each sand or sands were available by wells from 1913 to 1938, inclusive; and the annual rock pressures taken at the wellhead were also available for the corresponding sands.

The adoption of this method was made after a careful study of the available basic factual data, and of the applicability of other methods for estimating gas reserves.

For purposes of this reserve study, rock pressure data for the years 1913, 1914, 1921, 1922, 1927, 1928, 1932, 1933, 1937, and 1938 were used. Since these were years of minimum production and therefore minimum utilization for the majority of the wells of the company, the annual rock pressures for these years reflected more accurately the underground reservoir conditions than did the pressures taken during the intervening years.

The producing wells and acreage of the Hope Natural Gas Company are intermingled with those of other companies and are located both in individual areas constituted of single wells and in groups constituted of contiguous wells. In this study, wells and areas, whose locations were relatively close, were grouped according to geographical pools; and each sand pool was treated as a unit of natural gas reserve, since the gas could be withdrawn through the various wells in that area according to the methods of operation. The grouping of wells in this manner reflected underground reservoir conditions more truly than if each of the contiguous wells in that pool were treated individually. For those single wells which did not have sufficient contiguous production for the same sand, however, the gas reserves were computed for the "Individual Well" based upon a study of the rock pressures and a study of the production of that "Individual Well," or from comparable sand pool history.

## 10 *Sand Pools*

The first step in estimating gas reserves was the grouping of contiguous wells producing from common reservoirs into sand pools. A common reservoir has been considered to be one or more sands in a gas area, so interconnected through the bore hole of wells in that area as to permit equalization of pressures. As many as five or six sands may be producing through one string of casing, whereas originally each had been produced through a separate string of casing or tubing. Thus, by equalization of pressures through the well bore, the sands became a common sand reservoir.

Since any given well may produce through the casing from a single sand or through separate strings of casing or tubing within the well bore from one or more sands, the term "well" is used in this exhibit to denote a sand well producing through a string

of casing or tubing. For this reason, a well may appear in one or more sand pools.

The grouping of wells into sand pools involved the examination and classification of approximately 14,000 well data sheets. A sample sand pool map is illustrated on the following page. This map shows the location and serial number of all wells drilled by the company to the Gordon Sand in sand pool 2-1 Gordon.

[Page 11 omitted.]

## 12. *Isobaric Maps.*

The weighted average rock pressure during each of the ten years for each sand pool was determined by the use of isobaric maps. These maps were designed to show by lines of equal pressure the conditions in the sand reservoir. They were prepared by first plotting, accurately, the wells on base maps, which were drawn on a scale of approximately one inch to one mile. These base maps were prepared from photographic reproductions of the company's leasehold maps. Next, the current rock pressure of each year was plotted at the point the well is located on these maps, for each sand pool, and lines of equal pressure (isobars) were drawn to determine the areal extent of each pressure. Each area between the isobars was then carefully measured by means of a planimeter and the measured area thus obtained was multiplied by the mean pressure of the area to determine the weighted average pressure for each sand pool for each of the indicated years. Over 500 isobaric maps were prepared in the manner described. A sample isobaric map is illustrated on a following page. The annual rock pressures shown on this map are for 1938.

The annual calculated production was cumulated for all of the wells considered in each sand pool. This cumulative production and the weighted average pressures, together with the number of producing sand wells, were tabulated to facilitate the construction of rock pressure-production decline graphs. A sample tabulation is shown on the page following the sample isobaric map.

## *Rock Pressure—Production Decline Graphs.*

A rock pressure-production decline graph was constructed for each sand pool. The weighted average rock pressure, for each of the ten years indicated, was plotted on coordinate graph paper and the rock pressure decline drawn by connecting these points. On the same graph paper the cumulative production at the end



of each year was plotted as abscissas, and against this was plotted as ordinates, the weighted average rock pressure at the end of the corresponding year as determined by the rock pressure decline graph. An example of a rock pressure-production decline graph is shown on a following page. This graph represents the rock pressure-production decline for "sand pool" 2-1-Gordon.

Examination of the graphs thus constructed disclosed that considerable variation existed in the rate of decline of pressure when plotted against production over the period extending from 1913 through 1938. In general there seemed to be a more rapid rate

of decline of pressure for the volumes of gas produced 16 [pages 13 to 15 omitted] between 1913 and 1920 than between 1920 and 1930. Since the most recent operations reflect what the company may expect in the near future and since a ten-year history is considered a reasonable period of time for establishing reserves, the period from 1929 to 1938, inclusive, was used for extrapolating the curves to determine the future recoverable gas reserves. From an abandonment study of all wells abandoned by the company, it was found that 30 pounds was a reasonable average abandonment pressure for all wells producing from sands other than the Speechley and Benson sands. For the Speechley and Benson sands, which lie at considerably greater depths than the other sands, 100 pounds was considered a reasonable abandonment pressure. Accordingly, the points of production for the last ten years which were in alignment, were extrapolated to these abandonment pressures for the purpose of estimating the recoverable gas reserves.

The gas reserves of "Individual Wells" located outside of sand pools were estimated by the construction of individual rock pressure-production decline graphs on which the rock pressures were plotted against the cumulated production of each well and the resultant graph extrapolated to the abandonment pressures mentioned above.

*Estimated Recoverable Gas Reserves of Present  
Drilled Wells as of December 31, 1938.*

By the method just described, the estimated recoverable gas reserves of the present drilled wells of the Hope Natural Gas Company as of December 31, 1938, were found to total 436,361,755 MCF. This figure is on a calculated production basis of measurement. Estimates of the recoverable gas reserves by sand-pools and individual locations are given in detailed summaries in Part A, Volume III of this exhibit.



*Estimated Recoverable Gas Reserves From Deeper Sands in Present Drilled Wells as of December 31, 1938.*

The Hope Natural Gas Company contemplates that deeper sands in 119 of the company's present drilled wells will be productive of gas and will yield additional reserves if these wells are deepened and the deeper sands therein exploited.

After a careful study was made of each of these wells, the gas reserves recoverable from the prospective deeper sand or sands in each well were estimated by multiplying the estimated present useful rock pressure of each deeper sand by the volume in MCF of gas produced per well per pound pressure-decline for the sand pool in which the deeper sand is located. The estimated present useful rock pressure of each deeper sand was based upon the present rock pressures of nearby wells producing from the same sand.

By the above described method, the total estimated gas reserves recoverable from deeper sands in these 119 present drilled wells was found to be 28,285,256 MCF. This volume is based upon a calculated production basis of measurement. The estimated recoverable gas reserves from deeper sands in each of these wells are tabulated in Part B of Volume III of this exhibit.

*Estimated Recoverable Gas Reserves From Additional Locations on Operated Acreage as of December 31, 1938.*

The Hope Natural Gas Company contemplates 78 additional well locations on certain of the company's operated acreage.

The procedure of estimating the recoverable gas reserves underlying these additional locations was similar to that used in estimating the reserves from deeper sands in present drilled wells. The estimated present useful rock pressure of the prospective sand underlying each location was multiplied by the volume in MCF of gas produced per well per pound pressure decline for the sand pool in which the well site is located to determine the estimated recoverable reserves. The present useful rock pressure of the prospective sand was based upon the present rock pressures of nearby wells producing from the same sand.

The total estimated recoverable gas reserves from these additional locations on operated acreage was found to be 20,962,230 MCF. This volume is on a calculated production basis of measurement. The list of leases on which the additional locations are contemplated and the estimated gas reserves recoverable from

each of these additional locations are given in Part C of Volume III of this exhibit.

*Estimated Recoverable Gas Reserves from Additional Locations on In Lieu of Drilling Acreage as of December 31, 1938.*

The Hope Natural Gas Company contemplates 23 additional well locations on certain of the company's leaseholds on which there were no wells but upon which the company was paying 18 royalties in lieu of drilling. The company contemplates drilling a well on each of these locations in order to recover fully the gas reserves which cannot be recovered from adjacent drilled wells.

The recoverable gas reserves underlying each of these additional locations on in lieu of drilling acreage were estimated in a manner similar to that employed in estimating the recoverable gas reserves from additional locations on operated acreage. The estimated present useful rock pressure of the prospective sand underlying each location was multiplied by the volume in MCF of gas produced per well per pound pressure-decline for the sand pool in which the well site is located to arrive at the estimated recoverable reserves. The estimated present useful rock pressure of the prospective sand was based upon the rock pressures of nearby wells producing from the same sand.

The total gas reserves recoverable from the 23 well sites designated by the company as additional locations or in lieu of drilling leases was estimated to be 6,072,299 MCF. This volume is on a calculated production basis of measurement. The list of "in lieu of drilling leases" upon which it is contemplated these additional locations will be made and the estimated gas reserves recoverable from each of the additional locations are given in Part D of Volume III of this exhibit.

*Past Production of the Company—1913 to 1938, Inclusive.*

As mentioned previously in this statement, the annual calculated production for all of the wells of the Hope Natural Gas Company was available from 1913 to 1938, inclusive, and was transcribed to well-data sheets for purposes of this exhibit. The annual production of all wells was totaled by "Sand Pools" and "Pool Areas" and "Individual Wells" for use in the reserve study.

The total annual volume of calculated production from all of the wells in each pool area has been so classified and summarized as to reflect for each of the years 1913 to 1938, inclusive, the portion of such production in each pool which was recovered from

the present drilled wells of the company, the portion recovered from the dead wells on active acreage, and the portion recovered from the dead wells on dead acreage. The annual production so classified is presented in Volume II of this exhibit. Those tables show that the total quantity of calculated production from all company wells during the years 1913 to 1938, inclusive, amounted to 1,129,600,832 MCF.

19 *Method of Estimating Calculated Production Prior to 1913.*

Since the calculated production for all wells of the Hope Natural Gas Company was not available until 1913, the calculated production prior to 1913 had to be estimated.

The method here employed for estimating production prior to 1913 used the decline in rock pressure experienced by the wells that had produced gas in the period prior to that date and the volume in MCF of gas produced per pound pressure-decline experienced by the same wells or contiguous wells after that date. The original rock pressures, where available from the company's records, were transcribed to data sheets. Where original rock pressures were not available or were questionable, they were estimated from the rock pressure histories of nearby company wells or obtained from other company records. In the case of purchased wells which had produced gas prior to the date of purchase, the recorded or estimated rock pressure as of the approximate date of purchase was used.

The volume in MCF of gas produced per well per pound pressure-decline for each sand pool for the period 1913 to 1921 was determined from the rock pressure-production decline graphs previously described. The volume in MCF of gas produced per well per pound pressure-decline was obtained by dividing the cumulative production for the selected interval of years (between 1913 and 1921) by the product of the average number of wells producing gas during that interval and the pounds of pressure decline for the sand pool during that interval. This volume in MCF per pound pressure-decline was then applied as a multiplier to the pounds of pressure-decline experienced by each of the wells which produced from the same sand or sands prior to 1913, to determine the production of gas prior to that date. Since this volume-pressure multiplier was determined upon the basis of calculated production, the estimated production prior to 1913 likewise is on a calculated production basis of measurement.

An illustration of the information used in estimating the calculated production prior to 1913 is presented in the sample work-

ing sheet which appears on the following page. It will be observed that the adopted volume in MCF of gas produced per well per pound decline in pressure for the interval of years after 1913 appears at the top of the sheet and is applied as a multiplier to the net pounds of (pressure) decline to obtain the estimated production given in the last column.

[Page 20 omitted.]

The estimated production prior to 1913 is given by geographical location in the summary contained in Volume II of this exhibit. The total calculated production prior to 1913 has been estimated as 403,797,000 MCF. This figure includes the volumes of gas produced by all wells owned by the company since 1899 through 1912.

#### Conversion of Calculated Production to Actual Production

All volumes expressed in this exhibit are based upon calculated production. It is recognized, however, that the calculated volumes of gas produced from individual wells do not represent the volumes that would have been recorded had they been metered. Therefore, to convert the volumes shown in the various summaries and parts of this report to volumes that are comparable to metered production, it is necessary to apply conversion factors or multipliers developed by engineers of the Federal Power Commission from a study of the company's past production. These conversion factors are given in the tabulation "Recapitulation of Estimated Recoverable Gas Reserves and Past Production," Volume II, page 4 of this exhibit.

Since the conversion factor for the 21-year period immediately prior to 1938 was found by Commission engineers to be consistently 0.70, it was reasonable to assume that this same factor was applicable to the future recoverable gas reserves. Accordingly, as a final step in the presentation of the results of this gas reserve study, the total volumes of recoverable gas reserves have been translated to actual volumes by the application of this 0.70 conversion factor.

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#### Conclusion

The recoverable gas reserves from the present operated acreage of the Hope Natural Gas Company as of December 31, 1938, expressed as actual volumes in MCF, by the application of 0.70 conversion factor, are as follows:

Estimated recoverable gas  
reserves as of Dec. 31,  
1938, in MCF

Present drilled wells-----	305,453,220
Deeper sands in present wells-----	19,790,679
Additional locations on operated acreage-----	14,673,561
Additional locations on in lieu of drilling acreage--	4,250,609
<b>Total-----</b>	<b>344,177,078</b>

Signed JOHN S. ROSS,  
John S. Ross.

Date, February 3, 1941, at Washington, D. C.

[Pages 23 to 48 omitted.]

1 **EXHIBIT NO. 51-A.—ESTIMATED RECOVERABLE GAS RESERVES AND PAST PRODUCTION OF THE HOPE NATURAL GAS COMPANY AS OF DEC. 31, 1939, F. P. C. WITNESS ROSS**

	Calculated production (4 oz. +14.4 lbs.)	Conver- sion factor	Actual pro- duction (8 oz. +14.4 lbs.)
<b>Production, 1939, in MCF:</b>			
Present drilled wells	23,443,355	6.70	16,410,348
Dead wells on active acreage	38,981	.70	27,287
Dead wells on dead acreage (in pools)	131,067	.70	91,747
Dead wells on dead acreage (outside pools)	24,068	.70	16,848
Total, 1939	23,637,471		16,546,230
<b>Past production in MCF:</b>			
Total, 1899-1938 (Exhibit No. 43A)	1,533,397,832		1,268,972,545
Total, 1899-1939	1,557,035,303		1,285,518,775
<b>Estimated recoverable gas reserves in MCF:</b>			
Present drilled wells	413,287,713	.70	289,301,399
Deeper sands in present wells	28,241,537	.70	19,769,076
Additional locations on operated acreage	20,289,460	.70	14,202,622
Additional locations on in lieu of drilling acreage	6,072,299		4,250,609
Total	467,891,009		327,523,706
Probable total recovery in MCF	2,024,926,312		1,613,042,481



1     **EXHIBIT NO. 65.—DETERMINATION OF COMPOSITE SERVICE LIVES OF THE HOPE NATURAL GAS COMPANY PROPERTY BY PRIMARY ACCOUNTS, F. P. C. WITNESS FRENCH**

**WITNESS' POSITION AND EXPERIENCE**

Position: Engineer-Rate Investigator.

Education: High School, Ceredo, W. Va.; Lane Technical High School, Chicago, Illinois; Marshall College, Huntington, W. Va.; Ohio State University, Columbus, Ohio.

Experience:

1938 to date: Member of the staff of the Federal Power Commission, with title of Engineer-Rate Investigator. During this period have made numerous investigations and reports on natural gas utility properties. Have consulted with State Regulatory Commissions in the preparation of exhibits and testimony relating to natural gas properties, on depreciation and all other phases of rate-making.

1932 to 1938: Employed by the Railroad Commission of Texas as Chief Engineer of the Gas Utilities and Oil Pipe Line Division, in charge of all valuation and engineering reports and investigations relating to the operations of those companies in the State of Texas which were under the jurisdiction of that commission.

2     During this period valuations and reports were made on approximately 12,000 miles of gas production and transmission lines, 28,000 miles of oil pipe lines and 250 gas distribution systems. The total cost of these properties was in excess of one-half billion dollars. In the preparation of reports and exhibits on these properties it was necessary to determine depreciation rates on all classes of gas plant property. Approximately 7,000 bell-hole pipe inspections were made either personally or under my direction. From these inspections various data were listed in the determination of the extent and causes of underground corrosion of steel pipe and other factors leading to the ultimate retirement of pipe. Retirement studies of all classes of gas plant property were made from the records of all the companies investigated and the results analyzed.

When the Interstate Commerce Commission initiated its active regulation of interstate oil pipe line carriers during 1934 and 1935, I assisted that Commission's staff in setting up their method of inventory and inspection of oil pipe line carrier facilities, and accompanied Dr. Logan of the United States Bureau of Standards during the course of their inspection of oil pipe lines in the State of Texas.

During my employment as Chief Engineer of the Texas Railroad Commission, there were prepared, under my supervision, numerous engineering studies and reports on gas and oil properties, among which are listed the following major companies involved:

### 3 Natural Gas Production and Transmission Systems

United Gas Pipe Line Company.  
 Northern Texas Utilities Company.  
 West Texas Gas Company.  
 Lone Star Gas Company.  
 Public Service Corporation of Texas.  
 Rio Grande Valley Gas Company.  
 Tex-Mex Natural Gas Company.  
 Houston Gulf Gas Company.  
 El Paso Natural Gas Company.  
 Arkansas-Louisiana Gas Company.  
 City Gas Company.  
 Brazos River Gas Company.  
 M. & M. Pipe Line Company.  
 Southern Gas Utilities Company.  
 Texas Gas Utilities Company.  
 Producers Utilities Company.

### Natural Gas Distribution Systems

San Antonio.  
 Ft. Worth.  
 El Paso.  
 Waco.  
 Community Natural Gas Co. (190 towns).  
 Miscellaneous small towns (60 towns).

### Oil Pipe Line Carriers

Texas Pipe Line Company.  
 Atlantic Pipe Line Company.

Sinclair Prairie Pipe Line Company.  
 Humble Oil Company.  
 Texas Empire Pipe Line Company.  
 Sun Oil Company.  
 Gulf Pipe Line Company.  
 Shell Pipe Line Company.  
 Sinton Pipe Line Company.  
 Magnolia Pipe Line Company.  
 Barnsdall Pipe Line Company.  
 Numerous smaller properties.

4 On the above listed properties it was necessary to prepare inventory and appraisals, and in a number of instances, prepare exhibits and testify thereon.

I also prepared engineering studies relating to the determination of service lives of the several classes of natural gas property, the causes of removal of gas plant from service; and the frequency of replacement of natural gas pipe lines from all causes.

During this period, engineering studies were prepared under my supervision, for the purpose of determining the cost of natural gas service, which included allocation studies necessary for the determination of the cost of service at "city gates" and to individual consumers.

It was also my responsibility to appear and testify a number of times on matters relating to proceedings before the Commission and appear as a witness for the Commission in the Appellate Courts of Texas in cases involving the determination of rate base, depreciation, allocation, and other phases of complete gas rate investigations.

5 Under my supervision, time studies were made in the field of actual labor performances, during the course of construction, on practically all major gas and oil pipe lines constructed in Texas over a five-year period beginning in 1933. This construction exceeded 1,000 miles of pipe lines of various sizes ranging from two to twenty inches in diameter.

In carrying out the duties and responsibilities of the engineering work of the division there were from six to twenty-five engineers employed under my supervision, the number varying with the amount of work in progress.

1927 to 1932: Employed by the City of Amarillo, Texas, as Assistant City Engineer and Water Superintendent. During this period I was in charge of all design, specifications, and estimates on municipal projects constructed by the City. Construction work

completed during this period included sanitary sewerage system, storm sewers, several railroad underpasses, sewage disposal plant, several hundred miles of water mains, and other municipal improvements. I designed and prepared specifications on a proposed \$1,000,000.00 municipal natural gas plant for the City of Amarillo, part of which was constructed and placed in operation

before leaving the service of the City. I assisted Black and Veach, Consulting Engineers, in the preparation of a valuation of the properties of the Amarillo Gas Company. During this period I was also employed by the United States Bureau of Mines in connection with the construction of a helium extraction plant near Amarillo, Texas.

1925 to 1927: Employed by the Pacific Coast Steel Company in Seattle, Washington, as designer, detailer, and sales engineer of reinforced concrete structures.

1923 to 1925: Employed by the Consolidation Coal Company at Van Lear, Kentucky, as office engineer doing general engineering work.

1923: Employed by the American Rolling Mills Company in their steel plant located at Ashland, Kentucky, as detailer and mechanical draftsman.

Prior to 1923: Employed on various engineering work between school terms, and with the United States Army in France for one and a half years, during 1918 and 1919.

I am a member of the National Society of Professional Engineers, American Society of Civil Engineers, and a Licensed Professional Engineer in the State of Texas.

7

## WRITTEN EXPLANATORY STATEMENT

### INTRODUCTION

This exhibit sets out in detail by primary accounts the depreciation, depletion, or amortization method used and its application to the properties of the Hope Natural Gas Company.

Certain terms used herein are defined as follows:

"Depreciation," as applied to depreciable gas plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of gas plant in the course of service, from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy,

obsolescence, changes in the art, changes in demand and requirements of public authorities and, in the case of natural gas companies, the exhaustion of natural resources.

"Depletion," as applied to natural gas producing land and land rights, means the loss in service value incurred in connection with the exhaustion of the natural resource in the course of service.

"Service Life" is the period during which a particular unit of property is used or performs a useful function in the rendering of service by the utility; likewise the period of service between the installation of a unit of property and its retirement from service.

8 "Service Capacity" means the total output of utility plant realizable during its service life, measured either in number of years of service, number of work operations performed, or other production factor, as appropriate.

"Service Value" means the difference between original cost and the net salvage value of gas plant.

"Salvage Value" means the amount received for property retired, less any expenses incurred in connection with the sale or in preparing the property for sale, or, if retained, the amount at which the material recoverable is chargeable to Account 431, Materials and Supplies, or other appropriate account.

"Cost of Removal" means the cost of demolishing, dismantling, tearing down, or otherwise removing gas plant, including the cost of transportation and handling incidental thereto.

"Net Salvage Value" means the salvage value of property retired less the cost of removal.

"Property Retired" as applied to gas plant, means property which has been removed, sold, abandoned, destroyed, or which for any cause has been withdrawn from gas service.

"Retirement Units" means those items of gas plant which, when retired, with or without replacements, are accounted for by crediting the book cost thereof to the gas plant account in which included.

"Life Cycle" is the period of service life comprehended in the period of usefulness of a unit of property in a given position.

The service life of a unit may be comprised of one or more life cycles; these need not be consecutive, but may never overlap. When a unit of property has a second cycle of life, it is second-hand or reused.

9 "Average Service Life" is the average of a substantial number of individual service lives of similar units of property.

"Composite Service Life" is the weighted average service life of two or more groups of property; likewise that period of service life within which a uniform depreciation or depletion accrual will amount to the sum of the service values of the individual units of property in one or more primary plant accounts or principal plant divisions to which the composite rate is applied.

"Unit of Production" is one unit, on a uniform basis of measurement, of the produced or delivered principal service or commodity which the property is devoted to produce or deliver.

"Production Method" is a method of depreciation or depletion computation in which the loss in service value of property is spread over its service life uniformly in proportion to its units of commodity produced or service delivered without regard to time.

"Straight-Line Method" is the depreciation or depletion plan under which the service value of property is charged to operation expense or other accounts in equal, as nearly as may be, periodic amounts throughout its service life. Thus, under this method, the annual depreciation charge is obtained by dividing the estimated service value by the number of years of estimated service life.

## 10

## Scope of Exhibit

This exhibit describes the methods which have been used and the studies that were made in connection with the determination of average service lives and composite service lives applied to the gas plant of the Hope Natural Gas Company. It also describes the method employed to determine the necessary annual rates for depletion.

## General Statement

The gas plant in service of the Hope Natural Gas Company (exclusive of distribution plant and properties used to transport coke oven gas) after having been grouped in accordance with the functional divisions of operations, consisted of several major classes of property as at December 31, 1938. These classes are listed in the following tabulation in accordance with the depletion and depreciation method which has been applied. (While a distinction is sometimes made between depletion and depreciation for the purposes of the following discussion, the word "depreciation" is intended to include "depletion" where appropriate.)



*Production Method.*

Natural Gas Producing Lands and Leaseholds.  
 Field Line Construction and Rights-of-way.  
 Gas Well Construction.

*Straight-Line Method.*

Structures (Production, Transmission, and General).

Measuring and Regulating Station Equipment (Production and Transmission).

Gas Well Equipment.

11 Field Line Equipment.

Main Transmission Line Construction, Equipment and Rights-of-way.

Compressor Station Equipment.

Communication Equipment.

Other Equipment (Production, Transmission, and General).

*Clearing Accounts.*

Drilling and Cleaning Equipment.

Transportation Equipment.

It is to be understood in the subsequent discussions that the items above designated are intended to reflect the costs of all materials, installation, and all other expenditures that would be lost by retirement of the property.

Comprehensive engineering studies and detailed field inspections have been made of all classes of property in order that a rational application of the basic principals of depreciation might be applied to the depreciable property of the Hope Natural Gas Company as of December 31, 1938.

The property of the Hope Natural Gas Company consists of several types of physical property having various mortality characteristics. In the determination of the proper service lives for each group of property, consideration has been given to not only the type of property, but also to the character of service  
 12 that these units are called upon to render and the service conditions under which they operate and render service.

The properties that are subject to removal or retirement due to the exhaustion of the supply of gas, which they were designed and constructed to produce or gather, have been grouped in the several producing areas, designated by Federal Power Commission geologists, and was depreciated on a unit of production basis. The annual rates of accruals have then been determined upon the basis

of units of production ratably in proportion to the annual production of gas with the rate in each year determined to be the ratio of the annual production to the remaining recoverable gas reserves.

In a few instances property in more than one of the present primary property accounts has been grouped and a composite rate determined for the combined property for which accurate experience data were available.

During the course of the determination of the average service lives of this property, numerous and detailed inspections were made of all classes of property in the system. This includes an inspection of all visible property subject to examination such as structures and compressing station equipment and sample inspections at many points of the underground pipe and buried property comprising the pipeline system. I also made analyses to determine the property retirement experience of the company covering property whose service life had been terminated and the depreciation realized and a review of the maintenance policy and operating practices over the forty-year history of the company.

In addition, a study was made of the service age of the principal identifiable units of the company's property. (Service age is the period of time between the date when property is first placed in service and the date of the investigation.) Careful consideration and effect was also given to all of the relevant facts determinable concerning the probable future life expectancy of the principal physical units of property. In addition to the extensive inspection and study of the company's property, there was available during the process of determining the average service lives for all classes of this property, considerable relevant data from the following sources:

1. Interstate Commerce Commission, Bureau of Valuation determinations of service lives for oil pipeline properties in the United States, including lives determined for systems located in the same general territory.
2. Bureau of Internal Revenue determinations of service lives for various classes of gas corporation property.
3. Conferences on the service lives of gas plant equipment with manufacturers and users of such equipment.
4. A study of the service lives adopted by various Commissions and courts in proceedings involving the determination of service lives for all types of utility property, including natural gas companies;

5. Numerous public utility service-life studies, including natural gas companies, prepared by prominent engineers; and
- 14 6. Numerous service-life studies of natural gas companies made under my direction while Chief Engineer of the Texas Railroad Commission.

An examination of the voluminous and comprehensive working papers underlying the determinations of average and composite service lives in this exhibit will indicate the careful consideration that has been given to the many factors involved in these determinations.

The summary attached to this written explanatory statement sets forth, by primary accounts and groups of accounts, the composite service lives and the annual rates of depreciation which I have determined to be reasonable and applicable to the gas plant of the Hope Natural Gas Company. Each primary account or group of accounts is discussed below in the same order as the accounts are listed on the attached statement of composite service lives.

#### SERVICE LIFE DETERMINATION BY ACCOUNTS

##### *Natural Gas Producing Lands (330-1).*

This account includes lands owned in fee on which are located producing gas wells. Since these lands were purchased primarily for the production of gas and would be an entire loss to the company at the end of their production period, the original investment was grouped by producing areas and depletion computed on a unit of production basis. A study made to determine what portion of its cost the company would be expected to recover

15 through the sale at the end of the lands' useful gas production life, and the amount was found to be negligible.

##### *Leaseholds (330-2).*

Leases included in this account have been segregated, by Federal Power Commission geologists, into (a) operated acreage held for the production of gas, and (b) unoperated acreage. All leases under the classification of operated acreage were segregated further into their respective gas producing areas and depletion has been provided on the basis of the units of production from each area.

##### *Other Production System Land and Land Rights (330-5).*

Property in this account consists of tracts of land owned in fee upon which it appears the company can realize at the end of

its useful life an amount approximating in the aggregate the original cost. This land has therefore been considered nondepreciable and no allowance has been provided for losses attributable to its use in gas service.

*Field Line Rights-of-way and Field Line Construction (330-4) (333-1).*

Included in this account grouping are the rights-of-way for all of the field lines, together with the labor and construction costs for field lines, both "field trunk" and "field gathering." No physical property is involved in these accounts, 16 as the expenditures relate to installation costs and the securing of easements and rights-of-way. Since this property will have no further service value after the exhaustion of the available gas supply, and unlike pipe and other materials, cannot be used again at other locations, it has been determined that it is proper to measure the service capacity of this property by the life of the supply and provide for its depreciation upon the basis of the use of the property measured by the production of gas. This property has therefore been depreciated on a production basis. However since this property had more than one use, it has been segregated into three groups as follows:

- (1) Field Trunk and Gathering Lines.
- (2) Local Marketing Lines.
- (3) Lines receiving gas purchased under contracts.

The property included in group (1) was further segregated into the several designated gas production areas and depreciated upon a unit of production basis. Property included in groups (2) and (3) was depreciated on a unit of production basis, using over-all production as the base.

Local Marketing lines are defined as production system lines now devoted principally to the serving of towns and villages in West Virginia. A study made to determine whether such lines would be abandoned or removed from their present locations at the time of the exhaustion of the gas supply from the 17 Company's own production indicated that these local consumers would probably be supplied with gas service through pipe-lines laid in a more direct route to the main transmission lines. Since these towns and communities are scattered over the entire system of the Company, it was decided that the most accurate method of determining the service capacity and providing for the depreciation of the properties in this grouping would be on an over-all production basis.

Since data relating to the remaining value of gas reserves available to the Company from the purchase gas contracts were not available, it has been determined that the most equitable depreciation treatment for these lines would be similar to that for local marketing lines and such method has been adopted.

*Production System Structures (331-2) (331-3).*

Included in this account grouping are Field Measuring and Regulating Station Structures (331-2) and Other Production System Structures (331-3). Included under Field Measuring and Regulating Station Structures are approximately 590 regulator and meter houses. These structures are wood frame, metal sides and metal roof in construction. There are also included 1,480 free consumers' boxes. These structures are used to house equipment for the measurement of purchased gas. Most of these structures are small and portable.

Other Production System Structures include such structures as warehouses, district offices, pipe yards, machine shops, garages and miscellaneous smaller structures. These structures are located in the various operating districts and are for the most part of wood frame construction with metal sides and roof. There are several hundred of these structures, all of which I inspected in the field recording appropriate data, such as location, condition of maintenance, type of construction, type of foundation and age. A study was made of the Company's retirement experience on structures during the forty-year history of the Company. After giving consideration to all relevant depreciation factors causing the ultimate retirement of such property, both functional and physical, a composite service life of 24 years was determined to be reasonable and applicable to the Company's Production System Structures.

*Gas Well Construction (332-1).*

Well construction expenditures were grouped into designated gas producing areas and depreciated on a unit of production basis. There is no material included in this account for these well construction expenditures, such as labor and indirect expenses, and therefore they have no value after the exhaustion of the related gas supply.

### *Gas Well Equipment (332-2).*

This account includes casing and tubing and other well equipment such as closing-in equipment, packers, pumping  
19 equipment and storage facilities.

From the records of the company a study was made of all natural gas wells both drilled and acquired since the beginning of operations. This study was segregated into two parts, wells presently active and wells which have been abandoned. From this study the average age of the present active wells and the average age of wells abandoned was determined.

When pipe casing, tubing, or other equipment, not bearing a serial number or other identifying mark is moved from one location and is returned to the ware house, it loses its identity. It therefore is impossible in the case of this company to determine the actual age of any specific section of such pipe, casing, or tubing which is reused and is in other than its first cycle of use.

It was determined, after making the foregoing studies and a consideration of all relevant facts, that casing and tubing would be used in more than one gas well during their physical service lives.

It was found that the Company does not recover all of the materials in the well at the time of its abandonment, and it was necessary to consider this fact in the determination of service life of such property. Studies were made of the past retirement experience of the Company, and data were tabulated showing the percent of materials not recoverable from wells at the time of abandonment. Other studies were made from the records of the

Company to ascertain the average cost to abandon gas  
20 wells in accordance with the requirements of the laws of West Virginia. Data were secured on the average cost of abandonment of a gas well from other gas utility companies operating in the same area to check the accuracy of the average costs obtained from the study based on the current experience of the Hope Company.

During the spring and summer of 1939, engineers for the Federal Power Commission made numerous inspections in the field of casing and tubing as they were recovered from wells abandoned during that period. Much of this recovered casing and tubing had been previously used before being placed in these wells, which made it impossible to determine with any degree of exactness the age of the pipe in service, and therefore it was not



practicable to use this inspection data to establish the service life of casing and tubing.

In the absence of reliable data pertaining to the service lives of gas well casing and tubing, it has been necessary to utilize the service lives developed in connection with the transmission and field line pipe of comparable wall thicknesses, adjusted to give effect to losses other than physical.

In addition, a study was made of the Hope Company's experience in the retirement of all gas well equipment during the forty-year history of the Company.

After giving consideration to all relevant factors, it was determined that a service life of 40 years would be reasonable for gas well equipment.

21 *Field Line Material (333-1), Field Measuring and Regulating Station Equipment (333-2), Other Production System Equipment (337).*

Field Line Material (333-1) includes pipe and material in all field trunk and gathering pipe lines.

The principal use of these lines is for the collecting and gathering of gas from the well mouth to point of entry into the transmission system.

During the spring and summer of 1939, engineers for the Federal Power Commission made numerous individual inspections of pipe in these lines in the presence of engineers employed by the Company, at locations selected by the Company's representatives. There were 253 locations where inspections were made on field trunk and field gathering pipe lines.

From a study of the records of the Company, it was determined that the greater portion of the pipe included in this account had completed its first cycle of use and was reused or second hand pipe when it was installed at its present location. It was further found from an examination of the Company's records that it was impossible to determine with any degree of accuracy the age of this used field line pipe for it had lost its identity upon entering the warehouse after the first cycle of use, and no record was available from which the information could be secured. However, it was found that in some instances, where inspections were made that the pipe was new when installed. The data secured from the inspections of that portion of this pipe which was found to be in

22 its first cycle of use, together with similar data on pipe inspected on transmission lines of known ages, were used in the study of service life.

After consideration of the available data on all pipe, it was determined to use the same service life for field trunk and field gathering pipe as was used for transmission pipe of comparable wall thickness. In so doing it was necessary of course to make adjustments for losses that would occur due to the shifting of the field pipe from one location to another.

The average service life that has been determined for this pipe gave consideration to the portion of the life of the pipe and equipment which had been consumed in service prior to its acquisition by the Company. A more complete discussion of the data collected and the methods used in the determination of service lives for all pipe is presented in connection with the determination of service lives of the main transmission line material, Account (353).

A study was made of the Company's retirement experience of field trunk and field gathering pipe lines, and information secured from this study was also given due consideration in the determination of service lives for this pipe.

Field Measuring and Regulating Station Equipment (333-2) includes equipment such as orifice meters, positive meters and gauges used principally to measure gas purchased by the Company, free gas to lessors and gas used in the Company's operations. 23 and is located throughout the entire system. Field inspections were made of representative parts of this property, and a study was made of the retirement experience of the Company relative to the class of equipment included in this account.

Other Production System Equipment (337), includes items such as small gas engines, pumps, tools, etc., located at various points in the operating districts. A study was made of the retirement experience of the company relative to the class of property included in this account.

After giving consideration to all factors, both functional and physical, involved in the determination of the service life of this property, it was determined that a composite service life of 45 years would be reasonable for property grouped in these three accounts.

#### *Drilling and Cleaning Equipment (334).*

Investigation by the Commission's accounting examiners has revealed that depreciation of drilling and cleaning equipment is accounted for on the books of the Company through a clearing account, and is charged to gas plant or the operating expense accounts as appropriate. After considering the Company's expe-

rience in the retirement of drilling and cleaning equipment, it was found unnecessary to adjust the rates used by the Company for this account.

24 *Transmission System Land (351-12).*

This account includes tracts of land owned in fee and used principally as compressor station sites. No provision has been made for depreciation of these lands, for they are considered non-depreciable for it appears that there will be no losses in the aggregate attributable to their use in gas service.

*Transmission System Rights-of-way (351-23) and Transmission Line Construction (353).*

Transmission System Rights-of-way (351-23) includes the cost of easements and rights-of-way for all of the main transmission lines. Transmission Line Construction (353) represents the labor and indirect costs of construction of all transmission lines. The methods used in arriving at the service life of these accounts will be discussed later in connection with the determination of the service life of Main Transmission Line Material. These two accounts were kept separate in order to utilize the Company's recorded experience in the retirement of this classification of property. The average service life for the combined property in these two accounts has been determined to be the same as that of Transmission pipe line material, namely 44 years.

#### TRANSMISSION SYSTEM STRUCTURES

*Compressor Station Structures (352-2), Transmission System Measuring and Regulating Station Structures (352-3), Other Transmission System Structures (352-4).*

25 Compressor Station Structures (352-2) includes structures and improvements located at the several compressor stations. A field inspection was made by engineers of the Federal Power Commission of each of the forty-seven compressor stations of the Company. At each station data, such as the location, type of construction, size, condition of maintenance, kind of foundations and age, etc., were recorded for each of the many structures at each station. A careful study was made of the experience of the Company relative to the retirement of compressor station structures to ascertain the actual history of the Company in this matter. Further, a study was made from the records of the company to secure data relating to the cost of

abandoning compressor station structures and the percent of salvageable materials that had been recovered upon retirement.

It was found that the service life of the structures located at several compressor stations of the Company will be determined by the exhaustion of the available supply of gas which the station was constructed to compress. Consideration has been given in the determination of the service life of these structures to give proper effect to this known condition.

Transmission System Measuring and Regulating Station Structures (352-3), include structures such as measuring stations located at wholesale delivery points such as Clarington, Round Bottom, Bates and Wade, etc. All of these structures were inspected in the field and data were tabulated similar to that for compressor station structures. Studies were made of the 26 Company's retirement experience relating to structures under this classification.

Other Transmission System Structures (352-4) includes structures used by the transmission line operating personnel at various points on the transmission system. These structures consist of warehouses, pipe sheds, and pressure control houses, etc. These structures were also inspected in the field and appropriate notes made and data tabulated. A study was also made of retirements occurring to property of this class included under this account to develop the experience of the Company with similar property.

After giving weight to all relevant factors, both functional and physical, contributing to the ultimate retirement of this class of property, it was determined that a composite service life of 40 years is reasonable, proper, and applicable to the transmission system structures in these three accounts.

*Transmission Line Material (353), Transmission System Measuring and Regulating Station Equipment (354-3), Other Transmission System Equipment (354-4).*

Transmission Line material (353) includes pipe and fittings on all transmission lines. During the spring and summer of the year 1939, engineers for the Federal Power Commission made careful inspections of pipe in the field at approximately 297 locations on transmission pipelines and 253 locations on field pipelines. The locations of the inspections were selected by 27 Company engineers who were present at the time of these inspections.

The Federal Power Commission engineers made inspections and recorded data independent of that of the representatives of the

Company. Each inspection "bell-hole" was dug approximately six feet square with sufficient depth to completely uncover the pipe and permit an inspection of the bottom of the pipe as well as its sides and top. Data, such as the depth of the external pitting of the pipe (never less than ten pits on each 18-inch inspected section), location of pits, outside diameter of pipe, general characteristics of corrosion, kind of soil and topography were recorded. There was added in addition, information from the records of the company indicating the normal wall thickness of the pipe and its age in the position of installation. At practically all of the inspection locations samples were taken of the soil at points near the bottom and top of the pipe and also at the ground level. Corrosivity tests were made of representative samples of these soils, in Washington, D. C., under the direction of the United States Bureau of Standards and the results were correlated with the pit data recorded in the field by Commission engineers.

It is the general consensus of opinion that the average of the deepest pits that will be found in pipe will increase as the inspected area is increased. The method used by the Company engineers to determine the pit-depth area relationship, for the pipe of the Company, was found to be similar to that which  
 28 has been derived by the United States Bureau of Standards during the course of their study relating to the effect of underground corrosion of pipe. Using this same method, calculations have been made by Commission engineers to compute the average of the deepest pits in areas greater than those inspected in the field during the course of this investigation.

Upon completing the field inspections, the data secured were tabulated and analyzed and those inspections which appeared to have been made of pipe of an unknown age were omitted from the study of pitting rates as related to the age of the pipe. All of the remainder of the tabulated inspection data were analyzed and made a part of these studies. It was found that there has been a definite retardation in the rate of pitting of pipe, left undisturbed in the ground, with the passage of time. In the course of the studies analyzing this inspection data, calculations were made using several methods, and the results were plotted graphically to obtain the variation in service life of pipe using several terminal service conditions. All of these studies were used as guides in the determination of average service lives of pipe.



Members of the staff of the Underground Soil Corrosion Section of the United States Bureau of Standards, familiar with soil corrosion, were consulted to secure a further check on the Commission engineers' methods of analysis of available corrosion data.

In addition, a study was made from the records of the Company of the pipe retirements that have been experienced by  
 29 the Company during the entire history of its operations, and this information was also given consideration in the final determination of the average service lives of pipe.

One of the determinations resulting from the studies and investigations is that, with conditions comparable, the wall thickness of pipe is one of the principal factors controlling its service life. Consequently the service lives which have been determined give proper consideration and effect to the wall thickness of the pipe. The average service lives determined to be reasonable and proper ranged from 35 to 75 years.

Transmission System Measuring and Regulating Station Equipment (354-3), includes meters, regulators, pipe and fittings located principally in the Clarington, Round Bottom, Bates and Wade measuring stations of the Company. All of this equipment was inspected in the field and appropriate engineering data recorded. Likewise, a study was made of the retirement experience of the Company throughout its history for this class of equipment.

Other Transmission System Equipment (354-4) includes items of property such as pumps, tanks, tools, and miscellaneous equipment located principally in transmission line warehouses. A study was made of the Company's retirement experience for this class of equipment.

After an exhaustive study and careful consideration of all relevant facts involved in the determination of the service lives of this property, it has been determined that a composite  
 30 service life of 64 years would be reasonable and proper for the classes of property combined in these three accounts.

#### *Compressor Station Equipment (354-2).*

This account includes equipment, such as gas engines, compressors, pumps, motors, pipe, and fittings, located in the forty-seven compressor stations owned by the Hope Natural Gas Company. Detailed inspections were made in the field by engineers of the Federal Power Commission of all of the compressor station equipment and appropriate data such as type, size, kind, class, and manufacture of the equipment and its age, condition of maintenance, use, etc., were recorded. The operating record was compiled for each



of the nearly 200 compressing units in the system for each day of the calendar years 1934 to 1939 inclusive. This record contained for each unit the engine-hours operated, hours-down for repairs, volume of gas pumped in MCF, the suction pressures and discharge pressures, which provided a large volume of statistical data relating to the operation of this property. Data were also tabulated showing the major repairs and alterations of gas engines and compressors during this period, and in some cases prior years. The cost of maintenance of each station was also studied for a period of nearly 20 years where it had been in existence for that time, and for the complete period of its existence where it was of lesser age.

Gas compressor engines and their associated equipment can not be used economically unless they possess a high degree of performance in comparison with their capacity when new. Thus, when the time comes for such units to be retired, their service life is terminated and they are retired at net salvage value, even though the physical condition would enable them to continue to render service.

It has been found that equipment located at several of the compressor stations will not serve their total potential physical service lives at their present locations for the reason that the exhaustion of the gas supply in those related local areas which provide the supply of gas pumped by the station will terminate the service life of the components of material, labor, and indirect costs of the equipment for such locations. The engines, compressors, and other recoverable compressor station material may likely be transferred to another location and enter another cycle of use to complete its service life. Appropriate adjustments were made in the average service lives indicating the occurrence of this known functional condition to give effect to these causes of depreciation. A study was made of the retirement experience of the Company during its forty-year history. Several major manufacturers of gas engines and gas compressors were consulted and data relating to service lives of such equipment was discussed to secure an additional check upon the proper average service lives.

After giving consideration to all the factors entering into the ultimate retirement of this class of property, both functional and physical and the factors involved in the determination of service lives of this class of property, it was determined that the compressor station equipment of this Company would have a composite service life of 39 years.

*General Land And Land Rights (370).*

This account includes tracts of land on which are located the general structures of the Company, such as offices, warehouses, machine shops and garages. No provision has been made for depreciation of these lands, for it appears that there will be no loss in the aggregate attributable to their use in gas service.

*General Structures And Improvements (371).*

Included in this account are the general office buildings, warehouses, machine shops and garages of the Company. A field inspection was made of all of this property and appropriate data were recorded for each structure. A study of the retirement experience of the Company for this class of property revealed that to date few retirements had been made. It was further found there were two distinct classes of structures in this account, one class of structure being brick or fire-resisting and the other class being structures of less durable materials. This fact made it necessary to determine the average service lives of each class separately.

After consideration was given to all factors involved in the determination of the service life of this property, it was  
 33 determined that 50 years would be the proper service life for the general office building and general garage, and that 35 years would be proper for all other less durable structures, with the composite service life of all of these structures and improvements being 46 years.

*Furniture and Fixtures (372).*

This account includes all of the furniture and fixtures of the Company located in its general offices. A study was made of Company experience to give consideration to retirement losses on this class of property.

After a consideration of all relevant factors involved in the determination of the service life of this property, it was determined that a service life of 25 years would be reasonable and proper for office furniture and fixtures.

OTHER GENERAL EQUIPMENT

*Stores Equipment (374), Shop Equipment (375), Laboratory Equipment (376), Tools and Work Equipment (377), Miscellaneous Equipment (379).*

Stores Equipment (374), includes items of property such as benches, racks, bins, platforms, etc.

Shop Equipment (375), includes items of property such as drill presses, power saws, lathes, grinding machines, etc.

Laboratory Equipment (376), includes property used for testing gas, gas density apparatus, etc.

34 Tools and Work Equipment (377), includes items of property such as transits, levels, and other surveying instruments.

Miscellaneous Equipment (379), includes minor items of property such as time clocks, carbon monoxide detectors, etc.

Studies were made of the retirement experience of the Company on these classes of property, and after giving consideration to all factors it was determined that a composite service life of 27 years would be proper.

#### *Communication Equipment (378).*

Communication Equipment includes all general telephone and telegraph equipment in the communication system of the Company. There was no reliable mortality data available for this class of equipment from the property records of the Company, as the cost of practically all replacements had been charged currently as incurred to the maintenance expense account, and the true retirement losses were not reflected in the Company's property records.

Field inspections were made of this property by Commission engineers and appropriate data as to the type, kind, size and character of the construction were recorded.

After a consideration of all available relevant information and factors involved in the determination of the service life of this property, an average service life of 26 years was found to be reasonable and proper for Communication Equipment.

#### 35 *Transportation Equipment (373).*

Transportation Equipment includes automobiles, trucks and garage equipment of the Company. The investigations of the Commission's accounting examiners reveals that the depreciation for this property is accounted for by the Company through a clearing account, and is charged to gas plant or the appropriate operating expense account as the equipment is used. After considering the Company's experience in the retirement of Transportation Equipment and the rates it uses, it is determined to be unnecessary to revise the annual depreciation rate used by the Company.

## Summary by methods

Classification	Adjusted original cost 12-31-38	Composite service life (years)	Annual straight line rate (percent)
Straight line method.....	\$40,229,028.04	46.72	2.14
Production method.....	0,959,683.46		
Land and land rights.....	280,901.94	Non-Depreciable	
Drilling and cleaning equipment, and transportation equipment.....	728,007.20	Clearing Account	
Total.....	51,207,630.64		

Signed **FRANK S. FRENCH,**  
**Frank S. French,**  
*Engineer—Rate Investigator.*

Date, March 14, 1941, Washington, D. C.

**36 Statement of Composite Service Lives Determined for Gas Plant of Hope Natural Gas Company**

[Exclusive of Distribution Plant and Property Used to Transport Coke Oven Gas]

Account number and title	Adjusted book cost 12-31-38	Service life (years)	Annual straight line rate percent
PRODUCTION SYSTEM			
230-1 Producing lands	\$3,319.84	Production method	
330-2 Leaseholds	1,599,004.86		
230-5 Land and land rights	21,008.52		
Field line rights-of-way and field line labor:		Nondepreciable	
330-4 Rights-of-way	645,391.47		
333-1 Field line labor	2,622,489.58		
Total	4,267,881.05	Production method	
Production system structures:			
331-2 Field measuring and regulating station structures	21,138.92		
331-3 Other production system structures	191,188.81		
Total	212,327.73	24	4.17
332-1 Gas well construction	4,089,477.51	Production method	
332-2 Gas well equipment	7,610,589.75	40	2.50
Field line material and field measuring and regulating station equipment:			
333-1 Field line equipment	7,674,251.82		
333-2 Field measuring and regulating station equipment	181,285.03		
337 - Other production system equipment	75,532.21		
Total	7,924,169.06	45	2.22
334 Drilling and cleaning equipment	595,692.71	Clearing account	

**Statement of Composite Service Lives Determined for Gas Plant of Hope  
Natural Gas Company—Continued**

[Exclusive of Distribution Plant and Property Used to Transport Coke Oven Gas]

Account number and title	Adjusted book cost 12-31-38	Service life (years)	Annual straight line rate percent
<b>37 TRANSMISSION PLANT</b>			
351-12 Land	162,912.21	Nondepreciable.	
Transmission rights-of-way and transmission line labor:			
351-23 Rights-of-way	391,242.69		
353 Main line labor	4,705,495.99		
Total	5,099,738.68	64	1.56
Transmission system structures:			
352-2 Compressor station structures	1,441,882.38		
352-3 Transmission system measuring and regulating station structures	8,207.21		
352-1 Other transmission system structures	6,775.69		
Total	1,456,865.28	40	2.50
Transmission line material and measuring and regulating station equipment:			
353 Main line material	9,426,578.73		
354-3 Transmission system measuring and regulating station equipment	17,615.91		
354-4 Other transmission system equipment	21,015.55		
Total	9,465,210.19	64	1.54
Compressor station equipment, 354-2 Compressor station equipment	7,683,671.99	39	2.36
<b>38 GENERAL PLANT</b>			
370 Land and land rights	96,981.21	Nondepreciable.	
General structures and improvements:			
371 Office and garage	174,905.46		
371 Other structures	50,980.32		
Total	225,887.78	46	2.17
372 Furnitures and fixtures	178,683.34	25	4.00
Other equipment:			
374 Stores equipment	5,106.76		
375 Shop equipment	104,185.17		
376 Laboratory equipment	1,003.40		
377 Tools and work equipment	4,545.33		
379 Miscellaneous equipment	1,117.84		
Total	115,988.50	28	3.57
378 Communication equipment	248,975.74	26	3.85
Transportation equipment, 373 Autos and trucks	142,314.49	Clearing account.	
Total	51,207,620.64		

1     **EXHIBIT NO. 61.—DEPRECIATION AND DEPLETION OF  
GAS PLANT AS AT DECEMBER 31, 1938, F. P. C. WIT-  
NESSES SMITH AND DUNN**

**WRITTEN STATEMENT**

The Federal Power Commission, under date of October 14, 1938, issued an order of investigation into and concerning all rates, charges, classifications, rules, regulations, practices, or contracts of Hope Natural Gas Company. In accordance therewith, an examination of the accounts and records of Hope Natural Gas Company has been made, and, as a result, this report on the annual and accrued depreciation and depletion, as related to the original cost of the gas plant of the company, is submitted.

*Purpose and Scope of this Study.*

The purpose of this study is to determine the proper annual operating expense for depreciation and depletion and the proper amount of accrued depreciation and depletion as of December 31, 1938.

This study covers the period 1898 to 1938, inclusive, which is the entire corporate existence of the company to this date. It includes the original cost of plant accounts and additions, retirements, and adjustments thereto; property acquisitions and reserves acquired thereby; the losses from property retired and sundry matters affecting depreciation accounting.

Plant costs which are subject to loss in service value from causes described in the definition of depreciation, item 14, in the

2     Uniform System of Accounts, have been depreciated at the rates determined from service life estimates determined by the Bureau of Engineering. Plant costs, which are subject to loss in service value primarily as a result of exhaustion of natural gas resources, are depleted at rates derived from the annual production and natural gas reserves as determined by the Bureau of Engineering.

The depreciation and depletion expense is computed, and shown in the exhibit, by years, in order to give immediate effect to plant changes and retirement losses. All plant costs and retirement losses have been considered in this exhibit.



*Depreciation Accounting as Practiced by Hope Natural Gas Company.*

Throughout its existence, the Company has recorded in its accounts depreciation expense and the accumulated reserves. As shown in Schedule No. 6, the accrued reserves amounted to \$40,759,450.48 as at December 31, 1938. In order to discuss briefly the depreciation accounting, the following tabulations are submitted:

Balance in reserves as of Dec. 31, 1938	\$40,759,450.48
Less reserves for:	
Operated acreage	\$489,034.48
Unoperated acreage	231,290.52
Cost of abandoning	3,001.58
Contracts for gas	813.44
Surplus property available for sale	80,456.25
Appreciation—Clarksburg Lights & Heat Company	45,431.90
	<u>850,037.17</u>
Reserve for depreciation	<u><u>39,909,413.31</u></u>

3 The components of this reserve are summarized as follows:

Provisions	\$45,425,185.45
Reserves acquired	<u>2,164,107.45</u>
Total credits	47,589,292.90
Charges	<u>7,679,879.59</u>
Balance, Dec. 31, 1938	<u><u>39,909,413.31</u></u>

*Reserve Provisions.*

The provisions have been computed at widely varying rates and on various classifications of property. In general the provisions have been far in excess of requirements as proved by the large reserve balance in relation to plant accounts and the fact that the company has made two retroactive adjustments of depreciation expense, resulting in large credits to the Surplus Account. The first of these adjustments was recorded on Voucher D-136, 1908, in the amount of \$1,651,600.82. The second adjustment was recorded pursuant to an authorization granted by the West Virginia Public Service Commission dated December 18, 1934 in the amount of \$5,901,817.53. Of this latter amount, \$1,083,126.75 was a debit adjustment of the Reserve for Amortization of Drilling

Costs. The accounting for well drilling costs is summarized briefly in order to emphasize the Company's practices concerning these costs as they have an important part in this case.

From the inception of the Company until 1923, only materials (casing, tubing, equipment, etc.) of producing properties were capitalized. Drilling costs were charged to operations through the following expense accounts:

4      Years 1898-1907, inclusive, Account 6, Drilling wells (construction).

Years 1908-1920, inclusive, Account 16, Drilling new wells (construction).

Years 1921-1922, inclusive:

Account 2A, Gas well labor.

Account 2B, Gas well supplies and expense.

Beginning in 1923 (effective date of the first West Virginia system of accounts) it became the policy of the Company to capitalize the well drilling costs (intangibles). However, concurrently with the charge to plant accounts, a reserve in equal amount was set up by a charge to Account 62E—Retirement and Depletion Expense—Drilling Costs, and a credit to a reserve account, Amortization of Drilling Costs. In 1932 the reserve balance was transferred to an account Retirement and Depletion Reserve—Drilling Costs. Otherwise the procedure remained the same until 1934 when the above-mentioned adjustment of \$1,083,126.75 was recorded to restate the reserve on a production basis. The balance in the reserve was transferred to the Reserve for Depreciation—Gas Well Construction.

### *Reserves Acquired.*

It has been the accounting policy of Hope Natural Gas Company to enter in its records the book cost and book reserve for depreciation in the case of property acquired from affiliated companies or properties purchased in their entirety. In the cases of property acquired from nonaffiliated public utility companies, the original cost has been recorded by Hope Natural Gas Company, in accordance with its own accounting practice, that is, to record as fixed capital all material cost and the direct construction cost, except well construction. The difference between the amount recorded in the plant account and the purchase price (purchase price is generally less than original cost) has been taken as the measure of accrued depreciation existing in

the property and, therefore, credited to the reserve for depreciation.

The reserve balances thus acquired have been considered in the examiners' report schedules and are shown on line 49 of Schedule No. 1. Schedule No. 1 shows the total of \$2,389,561.09, which is identified with the total per books as follows:

Total reserves acquired, per books at Dec. 31, 1938.....	\$2, 164, 107. 45
Items not included in line 49 of Schedule No. 1:	
Drilling and cleaning equipment.....	\$16, 870. 60
Teaming.....	223. 62
Autos and trucks.....	24, 817. 61
Distribution plant.....	165, 041. 79
Other property.....	16, 152. 65
	<hr/> 223, 106. 27
	<hr/> 1, 941, 001. 18
Items added to line 49 of Schedule No. 1:	
Drilling and cleaning equipment.....	303, 906. 37
Teaming.....	42, 020. 98
Autos and trucks.....	102, 542. 56
	<hr/> 448, 559. 91
Total.....	<hr/> 2, 389, 561. 09

Examiners' adjusting entry No. 303, shown in the original cost study, reduces the capitalized cost and the acquired reserves in the amount of \$412,186.80 as explained in that entry. The charge to the reserve is included in the depreciation report schedules as shown in Subschedule No. 7A.

## 6 Reserve Charges.

A summary of charges to the depreciation reserve is shown, by years, as follows:

Year.....	Amount.....	Note.....
1920.....	\$95, 679. 06	(1)
1921.....	524, 880. 79	(1)
1922.....	388, 491. 61	(1)
1923.....	205, 000. 31	(2)
1924.....	166, 248. 13	(2)
1925.....	150, 062. 04	(1)
1926.....	195, 875. 40	(1)
1927.....	183, 727. 52	(3)
1928.....	241, 289. 01	(3)
1929.....	191, 551. 64	(3)
1930.....	253, 816. 71	(3)
1931.....	236, 287. 30	(3)
1932.....	192, 895. 90	(3)
1933.....	120, 664. 38	(2)
1934.....	184, 494. 87	(2)

Year:	Amount	Note
1934 Adj.-----	\$205,034.27	(a)
1935-----	215,605.44	(2)
1936-----	336,149.86	(2)
1937-----	407,843.61	(2)
1938-----	392,460.61	(2)
	4,888,748.46	
Adjustment from reserve for amortization of drilling costs-----	2,791,131.13	
Total charges-----	\$7,679,879.59	

There were no charges made to the depreciation reserve until 1920. Prior to 1920, property retirements were handled through an account called Depreciation and Adjustment account, which in turn was closed to surplus. From 1920 to 1938 the reserve was charged as described in the following notes:

1. Reserve charged with the computed amount of depreciation accruals on the property retired. The profit or loss on retirements, computed on the ratio of the reserve to the investment at the beginning of the year, was charged or credited to surplus.

2. Reserve charged with the excess of book cost over salvage value of property retired.

3. Reserve charges computed as in (1) but corrected by (a). As corrected represents excess of cost over salvage.

In order to determine the past loss on property retired, detailed analyses of the depreciation reserve, surplus, and other accounts have been made by the Federal Power Commission examiners and the Company. The Company has further classified the losses sustained by the property groups shown in the examiners' report schedules. These studies made by the Company and the examiners have been reconciled for the entire period. The results of the studies are set forth in Schedule No. 7 of this exhibit and applied to the report schedules as shown on line 53 of Schedule No. 1.

#### *Costs Subject to Depreciation and Depletion.*

Plant accounts have been summarized from the various depreciation schedules in order to bring out, in condensed form on the report schedules, the fact that all plant costs, from the inception of the Company have been considered in the depreciation and depletion calculations.

Line Nos. 1 to 5, inclusive, of Schedules Nos. 1 to 5, inclusive, show certain totals which are explained by the five captions, as follows:

8      Line No. 1—Original charges per books.

         Line No. 2—Adjustments by examiners.

         Line No. 3—Adjusted total cost subject to depreciation and depletion.

         Line No. 4—Retirements.

         Line No. 5—Adjusted book cost, December 31, 1938.

The adjusted book cost at December 31, 1938, agrees with the total shown in the exhibit on the original cost of gas plant accounts (excluding the specific distribution property), in the amount of \$51,207,620.64, shown on Line No. 5 of Schedule No. 1.

Line No. 4 of Schedule No. 1 shows the accumulated credits to plant costs, for property retired, in the amount of \$21,341,265.64. A related amount, the retirements less salvage value, is shown on line No. 53 as a charge to the accrued reserve.

Line No. 3 sets forth the total original cost subject to depreciation and depletion after giving effect to the examiners' adjustments, but before retirements are deducted.

Line No. 2 shows examiners' adjustments applied to the original charges per books. The examiners' adjustments referred to are those set forth in the exhibit on the original cost of gas plant accounts in the amount of \$2,099,171.81. This amount is reconciled as follows:

**Examiners' adjustments:**

Schedule No. 2—Depletable property.....	\$ 694,604.21
Schedule No. 3—Depreciable production property.....	283,903.35
Schedule No. 4—Transmission property.....	889,079.68
Schedule No. 5—General property.....	521,191.25
Schedule No. 1—Nondepreciable plant.....	43,739.37
	<hr/>
Schedule No. 1—Summary.....	1,043,329.44
	<hr/>
9      Other Accounts:	
Unoperated leaseholds.....	104,811.48
Coke oven gas property.....	186,320.44
Unoperated leaseholds, transferred.....	587,382.23
Coke oven gas property transferred.....	762,592.06
	<hr/>
Total other accounts.....	1,655,842.37
	<hr/>
Total plant adjustments.....	2,099,171.81

**Line No. 1, Original Charges Per Books**, represents the book charges of the Company's gross additions to plant accounts.

For the purpose of spreading the loss in service value as equitable as possible over the service life, the plant costs, adjustments, retirements, etc., have been classified by property groups and years. The classification is in accordance with a study made by the Company; certain details of which are set forth in Company Exhibit No. 24. These property groups are shown in detail on Schedules 2 to 5, inclusive. They are listed below:

Property group	Basis of depreciation and depletion	Service life in years
1. Operated acreage	Annual production	
2. Field line R. W. and construction cost	Annual production	
3. Gas well construction	Annual production	
4. Cost of abandoning gas wells	Annual production	
5. Production system structures	Group service life	24
6. Field line material, measuring and regulating station equipment	Group service life	45
7. Gas well equipment	Group service life	40
8. Drilling and cleaning equipment	Clearing accounts at company rates.	
9. Main line R. W. and labor	Group service life	64
10. Transmission structures	Group service life	40
11. Main line material, measuring and regulating station equipment	Group service life	64
12. Compressor station equipment	Group service life	35
13. General structures	Group service life	46
14. Office furniture and equipment	Group service life	25
15. Other general equipment	Group service life	27
16. Communication system	Group service life	26
17. Autos and trucks	Clearing accounts at company rates.	

Items 1, 2, 3, and 4 above are further subdivided into Production Areas, which areas are shown in an exhibit prepared by the Commission geologists, and certain miscellaneous groups. In order to reduce the number of columns in this report the 73 Production Areas have been summarized by the pool sheet numbers as shown on Subschedules 2A, 2B, 2C, and 2D.

Depreciation and depletion expense has been computed year by year and this annual charge is shown on lines 6 to 47 of Schedule No. 1. It is computed on the average investment for the year. Lines 48 to 54 show how the annual expense is directly related to the reserve.

Following this statement are the examiners' adjusting entries to give effect to the annual and accrued depreciation and deple-



tion, as determined by the examiners and submitted in the accompanying schedules.

The purpose and contents of the entries are described, briefly, in order:

Entry No. 1 removes certain amounts in the Reserves for Depreciation and Depletion as recorded on the Company's books at December 31, 1938. These reserves are admittedly overstated. In the explanation of the entry, certain amounts, which have not been adjusted by the examiner, are listed and described.

Entry No. 2 sets up the accrued Reserve for Depreciation and Depletion as determined by the examiner. One effect of these entries is to increase the earned surplus approximately \$15,800,000.00.

Entry No. 3 is to remove depreciation and depletion expense, as recorded by the Company, from the income account for the years 1937, 1938, and 1939. Details of the provisions removed, and certain provisions not removed, are shown in the explanation of the entry.

Entry No. 4 removes the charges to the Reserve for Cost of Abandoning, representing the actual costs incurred during the years 1937 and 1938, and includes them as an operating expense item in the income account.

The reserve for abandoning property, as computed by the Company, has been eliminated in the examiners' study. The largest part of this charge is cost of abandoning gas wells. The examiners have provided a reserve for the cost to abandon all gas wells in service at December 31, 1938, based on an average cost to abandon of \$1,007.40 per well, computed on the Company's production. The reserve maintained by the Company has little significance in that the provisions and charges thereto are practically equal.

Entry No. 5 removes the charges to the Reserve for Unoperated Acreage, representing the actual abandonments as recorded during the years 1937, 1938, and 1939 and includes them in Exploration and Development Costs.

The Reserve for Unoperated Acreage has been eliminated in the examiners' study. The Company has computed provisions at varying rates, beginning in 1920. The rate from 1927 to 1938 was 8% per annum on the balance in the account.

Entry No. 6 is an adjustment relating to the original cost study. In that study entry No. 324 credited the reserve for Unoperated

Acreage in the amount of \$104,811.48. Since the reserve has been discontinued, this amount is transferred to earned surplus as it represents an over-abandonment of lease costs in the past. In the study of Exploration and Development Cost this amount has been prorated to all leases surrendered to December 31, 1938. The costs in the income statement are adjusted for the years 1937 and 1938.

Entry No. 7 is to record the depreciation and depletion expense, as determined by the examiner, in the income account. Details of this expense for the year 1939 will be presented in a supplemental statement, as the present study ends at December 31, 1938.

Clarksburg, West Virginia, March 18, 1941.

EDWARD L. DUNN,

Edward L. Dunn,

*Examiner in Charge, of Field Assignment.*

Approved:

W. E. BAKER,

W. E. Baker,

*Chief Accountant.*

CHAS. W. SMITH,

Chas. W. Smith,

*Chief, Bureau of Accounts, Finance and Rates.*

[Pages 13 to 22 omitted.]

## HOPE NATURAL GAS COMPANY.

## Summary of annual and accrued depreciation and depletion of gas plant in service (exclusive of distribution plant) as at Dec. 31, 1938

Line No.	Particulars	Total plant	Total depreciable plant	Depreciable plant				Nondepreciable plant
		(b)	(c)	Total	Production plant	Transmission plant	General plant	
	(a)			(d)	(e)	(f)	(g)	(h)
1	Cost subject to depletion and depreciation	\$73,592,215.72	\$10,990,583.25	\$62,273,634.34	\$52,120,155.02	\$27,654,279.04	\$2,499,217.24	\$327,981.15
2	Original charges per book	1,945,359.44	694,404.26	1,694,174.28	285,905.55	889,076.68	521,191.75	45,759.87
3	Adjusted total cost, subject to depletion and depreciation	72,546,856.28	11,685,187.44	60,579,477.06	51,836,261.67	28,765,199.36	1,978,029.03	284,221.78
4	Less retirements	21,341,265.64	1,728,853.82	19,612,411.82	15,483,552.42	3,062,713.22	1,096,176.18	
5	Adjusted book cost, Dec. 31, 1938	51,205,620.64	9,956,333.62	40,967,035.24	36,352,699.25	25,702,486.14	911,849.85	284,221.78
6	Depreciation and depreciation computed annually	44.75		44.75	28.26		16.49	
7	1898	674.88		674.88	477.70	193.94	33.24	
8	1900	3,347.29		3,347.29	1,963.44	1,347.54	36.31	
9	1901	5,622.47		5,622.47	3,216.56	2,363.46	42.45	
10	1902	24,828.18		24,828.18	17,191.25	7,356.05	280.88	
11	1903	59,662.11		59,662.11	36,022.27	22,918.82	721.02	
12	1904	94,392.08		94,392.08	46,582.69	42,869.33	940.06	
13	1905	108,938.97		108,938.97	53,956.40	53,974.34	1,068.53	
14	1906	118,075.86		118,075.86	58,051.47	58,913.81	1,110.58	
15	1907	132,783.20		132,783.20	64,795.93	66,585.42	1,401.85	
16	1908	146,325.83		146,325.83	73,744.76	71,294.39	1,897.68	
17	1909	166,956.08		166,956.08	84,665.82	803,063.51	2,256.75	
18	1910	209,318.02		209,318.02	106,454.35	100,021.94	2,841.73	
19	1911	228,247.64		228,247.64	131,564.19	122,086.09	3,066.73	



Summary of annual and accrued depreciation and depletion of gas plant in service (exclusive of distribution plant) as at Dec. 31, 1938—Con.

Line No.	Particulars	Total depletable plant	Depreciable plant				Nondepletable plant
			Total	Production plant	Transmission plant	General plant	
	(a)	(c)	(d)	(e)	(f)	(g)	(h)
51	Less—Retirement losses:						
52	Loss on retirements per books as reclassified	\$4,653,815.77	\$2,972,214.70	\$1,711,799.33	\$1,133,907.21	\$126,508.16	
53	Loss on retirements per examiners' adjusting entries	1,638,049.37	1,678,914.94	347,833.26	1,093,540.87	237,540.71	
	Total retirement losses	6,292,465.14	4,651,129.64	2,059,632.59	2,227,448.18	364,048.87	
54	Total reserves for depletion and depreciation of gas plant in service, as adjusted, Dec. 31, 1938	23,501,355.80	16,868,975.87	8,673,235.85	7,779,280.75	436,450.27	
55	Net adjusted book cost, Dec. 31, 1938:						
56	Adjusted original book cost	51,207,020.64	40,967,035.24	16,352,600.25	23,702,086.14	911,849.85	\$284,221.78
	Adjusted depreciation reserves	23,501,355.80	16,868,975.87	8,673,235.85	7,779,280.75	436,450.27	
57	Net book cost	27,705,664.84	24,078,059.37	7,679,463.40	15,923,105.39	475,399.58	284,221.78

Italic figures denote decrease.  
[Page 24 omitted.]

## HOPE NATURAL GAS COMPANY

## Summary of Annual and Accrued Depletion Production Plant—Depletable Property as at Dec. 31, 1938

Line No.	Particulars (a)	Total (b)	Operated acreage (c)	Field line right-of-way and construction cost (d)	Gas well construction (e)	Cost of abandoning gas wells (f)
1	Cost subject to depletion:					
2	Original charges per books	\$10,990,583.23	\$1,723,573.48	\$4,089,799.13	\$5,177,210.62	
3	Adjustments	694,604.21	267,904.31	707,834.98	\$81,155.68	
4	Adjusted total cost subject to depletion	11,685,187.44	1,991,477.79	4,797,634.11	4,898,075.54	
5	Less retirements	1,728,823.82	392,472.93	529,753.06	806,597.83	
6	Adjusted book cost, Dec. 31, 1938	9,956,363.62	1,599,004.86	4,267,881.05	4,089,477.71	
7	Depletion, computed annually:					
8	Prior to 1913	973,743.15	262,438.92	395,208.33		\$316,075.90
9	1913	145,615.61	37,119.67	60,189.61		48,306.33
10	1914	151,055.19	24,719.12	61,339.37		54,996.70
11	1915	169,231.80	38,706.49	67,275.55		63,249.76
12	1916	337,934.30	72,891.60	135,740.96		129,301.74
13	1917	344,001.31	66,277.40	149,985.00		127,738.91
14	1918	296,376.30	55,055.49	128,702.88		112,617.93
15	1919	251,037.14	46,763.12	132,796.32		101,447.70
16	1920	343,465.93	54,904.83	165,144.68		123,416.42
17	1921	267,809.45	30,363.83	103,907.84		73,537.78
18	1922	225,894.01	32,008.22	114,069.64		79,817.05
19	1923	306,841.08	29,669.55	118,047.24	82,321.65	76,802.62
20	1924	337,604.14	27,325.32	117,279.91	116,964.31	76,334.60
21	1925	340,540.29	20,620.93	112,385.97	143,454.36	64,109.03
22	1926	331,366.44	23,139.83	110,459.16	137,431.23	60,496.22
23	1927	220,185.72	16,314.45	84,074.17	107,747.47	42,049.63



## Summary of Annual and Accrued Depletion—Production Plant—Depletable Property as at Dec. 31, 1938—Continued

Line No.	Particulars	(a)	Total (b)	Operated acreage (c)	Field line right-of-way and construction cost (d)	Gas well construction (e)	Cost of abandoning gas wells (f)
	Depletion, computed annually—Continued.						
22	1928		\$255,957.30	\$18,067.46	\$84,231.18	\$105,548.54	\$48,110.12
23	1929		287,640.79	23,334.77	96,669.61	110,588.29	56,868.12
24	1930		225,967.93	18,657.37	72,898.80	89,429.34	45,012.16
25	1931		193,362.87	16,550.67	65,728.81	71,477.85	41,905.54
26	1932		123,679.86	11,007.07	39,756.70	45,614.70	27,301.39
27	1933		146,728.08	41,373.17	49,444.63	55,076.56	30,631.72
28	1934		197,708.61	17,332.07	58,729.54	83,692.49	37,814.99
29	1935		342,212.91	30,253.68	92,800.63	165,335.81	53,762.79
30	1936		500,621.84	42,932.85	144,724.05	228,111.26	83,883.68
31	1937		446,646.10	40,703.86	131,847.14	198,255.61	75,833.49
32	1938		351,713.17	31,407.84	98,836.35	165,101.37	56,169.61
33	Total annual accruals to Dec. 31, 1938		8,116,906.29	1,110,559.58	2,992,334.13	1,906,751.46	2,107,261.03
34	Add—reserves acquired		136,809.23		136,809.23		
35	Total accruals and reserves acquired		8,253,715.43	1,110,559.58	3,129,143.36	1,906,751.46	2,107,261.03
36	Less—Retirement losses:						
37	Loss on retirements per books as reclassified		1,061,601.07	392,472.93	482,530.31	806,597.83	
38	Loss on retirements per examiners' adjusting entries		49,465.57	254,752.18	212,486.61		
39	Total retirement losses		1,111,066.64	647,225.11	695,016.92	806,597.83	
40	Total reserves for depletion of gas plant in service, as adjusted, Dec. 31, 1938.		6,612,379.50	970,838.83	2,434,126.44	1,100,153.63	2,107,261.03
41	Adjusted book cost, Dec. 31, 1938:						
42	Adjusted original book cost		9,056,963.69	1,599,004.86	4,267,881.06	4,089,477.71	
43	Adjusted depletion reserves		6,612,379.50	970,838.83	2,434,126.44	1,100,153.63	2,107,261.03
44	Net book cost		3,444,584.19	628,166.03	1,833,754.61	2,989,324.08	2,107,261.03

Italic figures denote decrease

(Pages 26 to 33 omitted)

## HOPE NATURAL GAS COMPANY

## Annual and Accrued Depreciation Production Plant—Depreciable Property as at Dec. 31, 1938

Line No.	Particulars	Total	Structures	Field line material measuring and reculating station equipment	Gas well equipment	Drilling and cleaning equipment
	(a)	(b)	(c)	(d)	(e)	(f)
1	Costs subject to depreciation:					
2	Original charges per books	\$32,120,155.02	\$250,355.32	\$11,418,271.21	\$16,175,156.74	\$4,267,371.75
3	Adjustments by particulars	\$83,601.35	1,017.24	260,962.42	283,066.55	208,137.38
4	Adjusted total cost subject to depreciation:	31,896,251.67	250,372.56	11,298,308.79	15,892,061.19	4,475,509.13
5	Less—Retirements	15,483,552.42	48,044.83	3,274,139.73	8,281,551.44	3,879,816.42
6	Adjusted book cost, Dec. 31, 1938	16,352,699.25	212,327.73	7,934,169.06	7,610,509.75	595,692.71
7	Depreciation, computed annually		4.17%	2.22%	2.30%	See note
8	1898	28.26		28.26		
9	1899	477.70	2.20	170.45	305.05	
10	1900	1,983.44	6.04	946.12	1,011.28	
11	1901	3,216.36	11.18	1,752.98	1,452.40	
12	1902	17,191.25	76.02	8,720.27	8,394.00	
13	1903	36,022.27	154.67	17,329.48	18,538.12	
14	1904	46,382.69	190.07	21,948.52	24,444.10	
15	1905	53,956.10	210.38	24,343.14	29,402.58	
16	1906	58,051.47	210.75	24,548.96	33,291.72	
17	1907	64,795.93	219.26	26,935.22	37,641.45	
18	1908	73,111.76	250.56	30,556.08	42,338.52	
19	1909	84,005.82	265.00	35,562.60	49,778.22	
20	1910	106,454.35	287.65	43,536.18	62,620.52	
21	1911	131,564.19	303.90	54,009.69	77,169.60	
22	1912	150,256.49	487.01	59,132.45	90,637.05	

## Annual and Accrued Depreciation Production Plant—Depreciable Property as at Dec. 31, 1938—Continued.

Line No.	Particulars	Total	Structures	Field line material measuring and regulating station equipment	Gas well equipment	Drilling and cleaning equipment
	(a)	(b)	(c)	(d)	(e)	(f)
	Depreciation, computed annually—Con.					
21	1913	\$167,343.33	\$541.27	\$92,017.56	\$104,784.50	
22	1914	185,413.24	625.37	65,302.72	119,485.15	
23	1915	199,155.06	662.60	68,507.25	129,954.92	
24	1916	215,634.34	830.00	73,004.19	141,200.15	
25	1917	244,183.48	1,028.24	84,960.09	158,105.15	
26	1918	268,364.27	1,353.29	95,643.73	171,367.25	
27	1919	296,074.81	1,643.81	105,200.85	176,200.15	
28	1920	298,594.98	1,901.44	115,211.87	181,421.55	
29	1921	298,640.41	2,550.33	119,106.26	176,984.82	
30	1922	295,055.66	2,974.63	119,905.55	172,175.46	
31	1923	297,596.98	3,183.92	123,152.86	171,260.20	
32	1924	305,198.65	3,544.12	126,833.55	172,900.98	
33	1925	315,192.59	4,005.41	136,612.98	174,484.20	
34	1926	326,681.05	4,400.48	144,247.47	178,233.10	
35	1927	343,110.53	4,776.78	153,541.15	184,792.60	
36	1928	352,245.80	4,994.78	159,864.60	187,396.42	
37	1929	365,101.63	5,220.09	167,551.04	192,330.50	
38	1930	378,821.33	5,464.91	175,038.87	198,317.55	
39	1931	377,705.36	5,596.78	174,573.63	197,574.95	
40	1932	375,889.81	5,561.40	174,034.12	196,204.20	
41	1933	373,728.39	5,563.24	173,535.05	194,629.50	
42	1934	382,107.72	7,079.74	176,637.43	198,390.55	
43	1935	390,376.63	8,592.87	179,413.21	202,370.55	
44	1936	389,083.57	8,612.09	179,237.98	201,233.50	
45	1937	388,735.58	8,763.59	179,949.69	200,022.30	
46	1938	388,006.13	8,859.54	180,626.84	198,519.75	
47	Total annual accruals to Dec. 31, 1938.	9,630,462.49	111,155.39	3,864,851.52	5,660,455.66	

48	Add—Reserves acquired	1,696,405.95	48,422.99	780,416.21	563,570.38	\$353,996.37
49	Total accruals and reserves acquired	10,732,868.44	159,578.36	4,645,267.73	8,924,925.96	393,996.37
50	Less—Retirement losses:					
51	Loss on retirements per books as reclassified	1,711,799.33	30,959.04	608,958.79	1,071,901.50	Note 1
52	Loss on retirements per examiners' adjusting entries	347,853.26	35,328.29	100,741.68	169,421.67	47,658.58
53	Total retirement losses	2,059,652.59	66,287.33	709,700.47	1,241,323.17	47,658.58
54	Total reserves for depreciation of production plant as adjusted, Dec. 31, 1938	8,673,235.85	93,311.05	3,845,567.26	4,382,702.79	351,654.75
55	Net adjusted book cost, Dec. 31, 1938:					
56	Adjusted original book cost	16,352,699.25	212,227.73	7,934,169.06	7,610,369.75	595,692.71
57	Adjusted depreciation reserves	8,673,235.85	93,311.05	3,845,567.26	4,382,702.79	351,654.75
58	Net book cost—Production plant	7,679,463.40	119,016.68	4,088,601.80	3,227,666.96	244,037.96

Italic figures denote decrease.

NOTE.—Depreciation expense on drilling and cleaning equipment is distributed through clearing accounts. Therefore, it is not practicable to revise the company's depreciation accounting. This reserve balance is the same as shown on the company's records as at Dec. 31, 1938.

## HOPE NATURAL GAS COMPANY

Schedule No. 4

## Annual and accrued depreciation transmission plant—as at Dec. 31, 1938

Line No.	Particulars	Total	Right-of-way and main line labor	Structures	Mains material and measuring and regulating station equipment	Compressor station equipment
	(a)	(b)	(c)	(d)	(e)	(f)
1	Cost subject to depreciation:					
2	Original charges per books	\$27,654,279.04	\$5,787,107.56	\$1,893,329.35	\$10,378,015.97	\$9,595,928.16
3	Adjustments by examiners	889,079.68	497,753.60	269,163.84	48,152.28	89,554.56
4	Adjusted total cost subject to depreciation	28,543,358.72	5,319,374.00	1,624,165.51	10,426,168.25	9,685,482.72
5	Less—Retirements	3,092,713.22	222,635.32	167,300.23	960,958.06	1,711,819.61
6	Adjusted book cost, Dec. 31, 1938	25,450,645.50	5,096,738.68	1,456,865.28	9,465,210.19	7,973,663.11
7	Depreciation, computed annually		1.56%	2.50%	1.56%	2.50%
8	1938	163.94	142.38		21.56	
9	1939	1,347.54	629.24		718.30	
10	1940	2,393.46	954.84	1.48	1,407.14	
11	1941	7,356.05	1,558.94	334.35	5,462.76	
12	1942	22,918.82	4,769.87	948.92	17,200.03	
13	1943	42,869.33	11,141.71	923.52	29,474.14	
14	1944	53,974.34	15,991.68	648.50	34,541.43	1,329.96
15	1945	58,913.81	17,337.11	1,180.02	35,063.23	2,792.73
16	1946	66,585.42	19,017.32	1,692.15	38,192.67	5,303.45
17	1947	71,284.39	20,832.93	1,757.88	40,736.61	7,083.28
18	1948	83,093.51	21,749.36	2,951.52	41,730.22	7,936.97
19	1949	100,021.94	24,339.01	4,844.05	48,158.79	13,662.41
20	1950	122,056.69	30,466.49	5,760.55	59,503.98	22,080.99
21	1951					26,955.87

20	1912	136,878.60	34,900.13	6,272.85	60,029.70	29,375.92
21	1913	151,880.19	38,428.12	7,708.18	66,856.76	36,797.13
22	1914	167,987.58	42,493.61	9,350.70	72,204.02	43,309.25
23	1915	175,490.50	42,837.30	10,428.98	72,511.51	43,043.08
24	1916	180,333.48	43,333.82	10,806.55	72,527.82	53,773.29
25	1917	189,031.80	44,550.12	11,653.78	73,533.72	59,294.18
26	1918	204,675.51	45,327.83	13,788.25	76,857.75	69,701.68
27	1919	221,771.35	44,812.31	16,113.32	79,927.24	80,918.48
28	1920	235,376.05	42,719.63	18,702.89	80,502.02	91,451.51
29	1921	248,783.25	42,924.70	21,344.32	82,541.72	101,972.51
30	1922	262,466.91	44,898.09	22,604.56	86,828.16	108,136.10
31	1923	268,967.13	46,188.33	22,966.87	88,800.13	110,702.80
32	1924	285,851.83	49,806.19	23,983.23	93,317.45	116,674.96
33	1925	342,671.56	63,020.73	29,089.77	114,014.88	136,546.18
34	1926	405,158.72	73,861.54	37,024.63	128,507.67	165,764.88
35	1927	424,954.56	74,055.59	41,355.77	129,017.62	180,525.98
36	1928	429,059.42	74,214.46	42,554.32	129,428.10	182,862.54
37	1929	437,712.57	74,729.12	43,399.86	130,706.88	188,876.71
38	1930	453,304.42	75,457.66	44,764.50	132,458.90	200,623.96
39	1931	459,893.30	75,620.71	45,683.46	131,978.19	205,610.94
40	1932	458,190.77	75,476.72	45,700.37	132,859.57	204,154.11
41	1933	458,271.62	75,481.80	45,506.97	132,807.20	204,385.65
42	1934	458,380.50	75,485.75	45,447.46	132,945.73	204,501.56
43	1935	458,427.95	75,486.98	45,516.72	132,969.02	204,458.23
44	1936	471,973.10	80,625.03	45,274.13	130,717.87	206,356.07
45	1937	486,690.03	89,539.44	45,000.02	146,777.47	208,343.20
46	1938	488,400.38	87,322.17	44,921.20	146,989.64	209,167.37
47	Total annual accruals to Dec. 31, 1938	9,590,502.32	1,796,218.76	818,168.20	3,229,783.53	3,743,331.83
48	Add—Reserves acquired	416,235.61		90,220.83	39,552.03	286,462.75
49	Total accruals and reserves acquired	10,006,737.93	1,796,218.76	908,389.03	3,269,335.56	4,029,794.58



## Annual and accrued depreciation transmission plant—as at Dec. 31, 1938—Continued

Line No.	Particulars	Total (b)	Right-of-way and main line labor. (c)	Structures (d)	Mains material and measuring and regulating station equipment (e)	Compressor station equipment (f)
	(a)					
50	Less—Retirement losses					
51	Loss on retirements per books as reclassified	\$1,133,907.21	\$181,331.43	\$127,040.06	\$318,883.82	\$206,639.90
52	Loss on retirements per examiners' adjusting entries	1,093,540.97	301,197.24	285,508.72	87,498.90	419,336.11
	Total retirement losses	2,227,448.18	482,528.67	412,557.78	406,382.72	625,976.01
53	Total reserves for depreciation of transmission plant, as adjusted, Dec. 31, 1938	7,779,289.75	1,316,690.09	495,831.25	2,862,949.84	3,103,818.57
54	Net adjusted book cost, Dec. 31, 1938					
55	Adjusted original book cost	23,702,486.14	5,096,738.68	1,456,905.28	9,465,210.19	7,683,671.99
	Adjusted depreciation reserves	7,779,289.75	1,316,690.09	495,831.25	2,862,949.84	3,103,818.57
56	Net book cost—Transmission plant	15,923,196.39	3,780,048.59	961,074.03	6,602,260.35	4,579,853.42

Italic figures denote decrease

## HOPE NATURAL GAS COMPANY

## Annual and accrued depreciation general plant—as at Dec. 31, 1938

195

Line No.	Particulars	Total	Structures and improvements	Office furniture and equipment	Other equipment	Communication system	Autos and trucks
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Cost subject to depreciation	\$2,490,217.28	\$56,206.11	\$326,735.16	\$670,365.48	\$290,453.28	\$945,597.25
2	Original charges per books	681,191.85	36,717.58	61,805.98	354,366.85	0	68,890.99
3	Adjusted total cost subject to depreciation	1,978,026.03	229,488.59	265,429.18	315,838.65	290,453.28	876,706.32
4	Less—Retirements	1,066,176.18	3,600.81	86,745.84	199,870.15	41,477.94	734,441.94
5	Adjusted book cost, Dec. 31, 1938	911,849.85	225,887.78	178,683.34	115,968.50	248,975.74	142,314.49
Depreciation, computed annually							
6	1898	16.49	2.86% 1898-1929	4.00%	3.57%	3.85%	
7	1899	33.24			16.49		
8	1900	36.31			33.24		
9	1901	42.45			36.31		
10	1902	280.88			42.05		
11	1903	721.02			209.42		
12	1904	940.06			157.68		
13	1905	1,008.53			542.18		
14	1906	1,110.58			602.87		
15	1907	1,401.85			706.18		
16	1908	1,897.66			41.42		
17	1909	2,246.75			763.37		
18	1910	2,841.73			840.31		
19	1911	3,496.73			922.87		
20	1912	5,343.37			1,057.51		
					1,197.31		
					1,267.78		
					1,088.74		
					2,533.15		

See note.

*Annual and accrued depreciation general plant—as at Dec. 31, 1938—Continued*

Line No.	Particulars	Total	Structures and improvements	Office furniture and equipment	Other equipment	Communication system	Autos and trucks
	(a)	(b)	(c)	(d)	(e)	(f)	(g)
<b>Depreciation, computed annually—continued.</b>							
21	1913	\$6,490.27	\$253.03	\$1,794.20	\$790.58	\$3,631.86	
22	1914	7,043.03	280.29	1,800.88	856.01	4,006.85	
23	1915	7,209.02	296.50	1,904.56	867.08	4,080.88	
24	1916	7,834.78	322.87	2,305.12	961.50	4,215.29	
25	1917	9,090.24	342.00	2,813.20	1,461.49	4,473.55	
26	1918	10,840.03	593.22	3,351.72	1,967.32	4,927.77	
27	1919	12,111.26	845.73	3,807.58	2,196.16	5,261.49	
28	1920	14,773.17	847.05	4,296.26	5,056.12	4,573.72	
29	1921	19,051.85	847.05	4,885.40	9,086.94	4,262.46	
30	1922	21,053.88	845.96	5,112.12	10,176.38	4,616.42	
31	1923	21,280.23	850.88	5,186.32	10,614.29	4,628.74	
32	1924	21,504.91	850.88	5,380.20	10,448.83	4,824.90	
33	1925	22,853.88	854.40	5,701.80	10,460.46	5,837.22	
34	1926	25,887.75	973.54	6,516.20	10,853.16	7,544.85	
35	1927	28,190.89	1,147.78	7,273.32	11,220.83	8,547.96	
36	1928	28,978.68	1,206.32	7,593.08	11,410.15	8,797.13	
37	1929	33,046.70	3,959.10	8,051.88	11,457.07	9,078.65	
38	1930	35,950.99	5,281.24	8,537.72	12,830.12	9,301.91	
39	1931	36,743.08	5,511.28	8,707.92	13,123.95	9,359.93	
40	1932	36,875.86	5,543.98	8,860.68	13,123.71	9,347.49	
41	1933	37,098.52	5,535.30	8,932.56	13,244.12	9,371.05	
42	1934	37,677.07	5,535.00	9,032.48	13,738.54	9,371.05	
43	1935	38,115.57	5,534.67	9,216.84	13,981.09	9,382.37	
44	1936	38,495.21	5,534.67	9,295.92	14,261.47	9,462.15	
45	1937	39,439.36	5,534.67	9,361.00	15,054.40	9,448.29	
46	1938	40,825.94	5,616.61	9,522.80	16,141.99	9,544.54	
47	Total annual accruals to Dec. 31, 1938	667,388.84	65,865.30	196,662.80	245,614.46	181,246.28	

48	Add—Reserve acquired	140,110.20	9,300.03	13,209.58	10,963.39	3,634.74	102,542.56
49	Total accruals and reserves acquired	890,499.14	75,725.33	179,812.38	256,477.85	185,941.02	102,542.56
50	Less—Retirement losses:						
51	Loss on retirements per books as reclassified	126,598.16	3,522.81	55,023.13	60,752.89	7,209.33	See note.
52	Loss on retirements per examiners' adjusting entries	237,540.71	5,489.65	61,305.98	173,353.73	0	2,608.65
53	Total retirement losses	364,048.87	9,012.46	116,329.11	234,106.62	7,209.33	2,608.65
54	Total reserves for depreciation of general plant, as adjusted, Dec. 31, 1938	436,450.27	66,712.87	63,483.27	22,371.23	178,731.69	105,151.21
55	Net adjusted book cost, Dec. 31, 1938:						
56	Adjusted original book cost	911,849.85	225,887.78	178,683.34	115,988.50	248,975.74	142,314.49
57	Adjusted depreciation reserves	436,450.27	66,712.87	63,483.27	22,371.23	178,731.69	105,151.21
58	Net book cost—General plant	475,399.58	159,174.91	115,200.07	93,617.27	70,244.05	37,163.28

NOTE.—Depreciation expense on autos and trucks and teaming is not distributed through clearing accounts. It is not considered necessary to revise the company's depreciation accounting. The reserve balance is the same as shown on the company's records as of Dec. 31, 1938.

Italic figures denote decrease.

*Depreciation and Depletion Reserves, Per Books from Jan. 1, 1937, to Dec. 31, 1938*

Depreciation and Depletion Accounts												Transferred to new accounts as of Jan. 1, 1939	
Plant accounts	Reserve bal- ance Jan. 1, 1937	Provisions 1937		Reserve bal- ance Dec. 31, 1937	Provisions 1938		Reserve bal- ance Dec. 31, 1938	290-1	Other accounts				
		Rate	Amount		Rate	Amount			No.	Amount			
											(l)	(m)	
(a)		(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)		
Production system:													
Operated acreage	\$418,197.54	Deple- tion	\$58,465.39	\$7,940.81	\$468,722.12	Deple- tion	\$30,722.15	\$10,409.79	\$469,034.46		230-2 \$469,034.46		
Unoperated acreage	231,589.64	8%	40,683.22	19,824.10	252,438.76	8%	40,678.77	61,828.01	231,290.52		230-3 231,290.52		
Gas well equipment	5,393,989.67	Deple- tion	166,565.24	56,640.45	5,503,914.46	Deple- tion	86,716.27	73,839.53	5,519,276.99	63,519,276.99			
Gas well construc- tion	2,357,360.29	Deple- tion	132,741.57	95,643.72	2,394,458.14	Deple- tion	74,045.35	127,406.38	2,341,097.11	2,341,097.11			
Other field invest- ment	9,805,545.57	4%	400,573.12	41,763.92	10,123,755.90	3%	342,977.93	84,991.74	10,381,742.09	10,381,742.09			
Ledges and easements	456,930.39	4%	21,068.55	1,980.27	475,949.67	3%	15,828.17	2,729.83	489,048.01	489,048.01			
Total production system	18,923,613.10		779,438.22	223,802.27	19,219,249.05		590,968.64	358,719.49	19,451,498.20				
Transmission system:													
Equipment	10,028,078.28	3 1/2%	344,990.09	156,788.06	17,416,879.78	3%	731,771.43	25,378.02	18,123,273.10	18,123,273.10			
Losses and easements	359,196.54	3 1/2%	18,825.52	104.52	377,917.54	3%	16,458.98		394,376.52	394,376.52			
Total transmission system	10,987,274.92		363,815.61	156,892.58	17,794,797.32		748,230.41	25,378.02	18,517,640.71				





38 Docket G-113

## HOPE NATURAL GAS COMPANY

Schedule No. 7

Total loss on property retired, per books, as reclassified by the Company by years 1938 to 1938, inclusive, showing examiners' adjustments as at Dec. 31, 1938, from original cost study

Account	Total 1938-1938 per books reclassified	Examiners' adjustments	Total charges to adjusted depreciation and depletion reserves	Reference to—		Remarks
				Examiners' schedule No. column	Company exhibit No. 24 table	
(a)	(b)	(c)	(d)	(e)	(f)	(g)
<b>Production plant:</b>						
Rights-of-way and field line labor	\$482,530.31	\$212,486.61	\$695,016.92	2 (d)	H	
Operated acreage	392,472.93	\$58,758.18	139,720.75	2 (c)		
Gas well construction	774,448.31	32,149.52	806,597.83	2 (c)		
Structures	30,929.04	35,328.29	66,257.33	3 (c)	G	
Field line material, measuring, and regulating station equipment	608,908.79	190,741.08	799,700.47	3 (d)	H	
Gas well equipment	1,071,901.50	\$9,421.67	1,241,323.17	3 (c)		
Drilling and cleaning equipment	234,811.04	47,658.58	47,658.58	3 (f)		
<b>Total</b>	3,596,061.92	339,717.21	3,700,968.09			
<b>Transmission plant:</b>						
Rights-of-way and main line labor	181,331.43	301,197.24	482,528.67	4 (c)	J	
Structures	127,049.06	285,508.72	412,557.78	4 (d)	I	
Main line material, measuring and regulating station equipment	318,886.82	87,408.90	406,295.72	4 (c)	J	
Compressor stations	266,639.90	419,336.11	925,976.01	4 (f)	K	
<b>Total</b>	1,133,907.21	1,093,540.97	2,227,448.18			
<b>General plant:</b>						
Structures and improvements	3,622.81	5,489.65	9,012.46	5 (c)	L	
Office furniture and equipment	55,023.13	61,305.98	116,329.11	5 (d)	M	
Other equipment	60,752.89	173,353.73	234,106.62	5 (c)	N	
Telephone and telegraph system	6,247.49	13,466.82	7,209.33	5 (f)		

Teaming \*  
Autos and trucks \*

Total

Total production, transmission and general (schedule 1, line 53)

Reconciliation to Exhibit 24, table B, column 2:

Deduct retirement losses on:

Gas well construction

Gas well equipment

Operated acreage

Drilling and cleaning equipment

Telephone and telegraph system

Teaming

Autos and trucks

Total of above

Total per Exhibit 24, table B, column 2

	108,805.64, 424,224.14	\$,998.65	\$,698.68	5 (c)
	706,081.02	250,997.53	364,048.87	5 (c)
	5,436,030.15	1,664,255.71	6,292,465.14	
	771,448.31			
	1,071,901.50			
	302,472.93			
	234,811.04			
	6,247.49			
	168,805.54			
	424,224.14			
	3,040,415.97			
	2,375,634.18			

\* In order to set up retired gas wells by production areas the examiners went through the gas well ledgers, listing the capitalized construction cost of each retired well which resulted in the amount of \$806,997.83.

\* Depreciation reserve, not adjusted for teaming, autos and trucks, drilling and cleaning equipment. The retirements, per books, are not shown on the examiners' schedules for these items, hence the total retirement losses amount to \$7,120,805.86 as follows:

Total, column (d)

Drilling and cleaning equipment

Teaming

Autos and trucks

Total

\* The total loss on property retired from 1908 to 1938 shows a credit of \$6,247.49, as a result of a credit made to the depreciation reserve on voucher A-168, 1921, in the amount of \$13,465.82 for an adjustment of telephone lines. It is the opinion of the examiners that the costs adjusted by voucher A-168 were originally charged to maintenance rather than to plant; and, consequently, the adjustment should be a credit to surplus rather than the depreciation reserve.

Italic figures denote decrease.

[Pages 39 to 40 omitted.]

\$6,202,465.14  
234,811.04  
168,805.54  
424,224.14  
7,120,805.86

1 **EXHIBIT NO. 89.—ESTIMATED COST OF ABANDONING,  
F. P. C. WITNESS DUNN**

Property classification	Gross retirement	Deferred retirement	Total retirements	Cost of abandoning	
				Rate	Amount
Production system structures	\$48,044.83	\$35,328.29	\$83,373.12	10	\$8,337.31
Field-line material	3,274,139.73	190,741.68	3,464,881.41	19.67	681,542.17
Gas-well equipment					
Transmission right-of-way and labor transmission structures	167,300.23	285,508.72	452,808.95	10	45,280.90
Transmission main maintenance, M. & R. station equipment	960,958.06	87,498.90	1,048,456.96	19.97	209,376.85
Compressor station equipment	1,711,819.61	419,336.11	2,131,155.72	10	213,115.57
General structures	3,600.81	5,489.65	9,090.46	10	909.05
Communication equipment	41,477.54		41,477.54	10	4,147.75
	6,297,340.81	1,023,903.35	7,321,244.16		1,162,709.67

**EXHIBIT NO. 124.—COMPARISON OF COMPANY'S AND F. P. C. EXAMINERS' CLAIMS AS TO COST OF PRODUCTION, TRANSMISSION, AND GENERAL PLANT AS OF DEC. 31, 1938, HOPE WITNESS SULLIVAN**

Account No.	Description	Company's reproduction cost (from exhibits 16, 21, 22, 36, 37, 38, and 39)			Company's original cost (from exhibit 20)	Company's original cost trended to 1938 prices (from exhibit 20)	F. P. C. examiners' adjusted book cost (from exhibits 57, 61, 62, and 90)		
		New	Percent condition	Less depreciation			Adjusted book cost	Net book cost	
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1)	(2)								
330-1	Natural gas production plant:								
330-2	Natural gas producing lands	\$2,275	100.0	\$2,275	\$2,370	\$2,370	\$3,330	100.0	\$3,330
	Operated acreage	1,084,636	28.6	482,311	1,084,636	1,084,636	1,590,005	39.3	628,169
	Unoperated acreage	681,892	100.0	681,892	681,892	681,892	1,584,382	100.0	1,584,382
330-5	Other land and land rights	21,045	100.0	21,045	22,126	22,126	21,008	100.0	21,008
	Production structures:								
331-1	Gas well structures	11,912	56.0	6,671					
331-2	Field measuring and regulating station structures	58,222	51.0	29,693	40,773	41,799	21,139	56.1	119,017
331-3	Other production system structures	374,267	57.0	213,332	291,872	348,145	191,189		
	Total production structures	444,401	56.2	249,696	332,645	389,944	212,328	56.1	119,017
	Gas wells:								
332-1	Producing gas wells—well construction	19,321,139	31.3	6,047,517	17,783,637	34,384,320	4,089,478	73.1	2,949,324
332-2	Producing gas wells—well equipment	10,874,199	56.4	6,132,048	8,106,192	16,663,983	7,610,510	42.4	3,227,897
	Cost of abandoning wells								\$ 107,261
	Total gas wells	30,195,338	40.3	12,179,565	25,951,829	45,048,303	11,700,988	35.1	4,199,870

F. P. C. Exhibit No. 30 includes "6% interest on unoperated acreage" applied to this amount in examiners' rate adjustments. Italic figures denote decrease.

[illegible]

**EXHIBIT NO. 124.—COMPARISON OF COMPANY'S AND F. P. C. EXAMINERS' CLAIMS AS TO COSTS OF PRODUCTION, TRANSMISSION, AND GENERAL PLANT AS OF DEC. 31, 1938, HOPE WITNESS SULLIVAN—CONTINUED**

Account No.	Description	Company's reproduction cost (from exhibits 16, 21, 22, 26, 37, 38, and 39)			Company's original cost (from exhibit 20)	Company's original cost 1938 prices (from exhibit 29)	F. P. C. examiners' adjusted book cost (from exhibits 57, 61, 62, and 90)		
		New	Percent condition	Less depreciation			Adjusted book cost	Percent of adjusted book cost	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
372	Office furniture and equipment	\$210,047	70.0	\$147,033	\$195,911	\$217,548	\$178,684	64.5%	\$115,200
373	Transportation equipment	166,990	56.0	92,514	148,540	151,163	142,314	26.1	37,163
378	Communication equipment	419,890	68.0	285,505	347,639	394,638	248,976	28.2	70,244
	Other equipment:								
374	Stores equipment	10,304	75.0	7,728	9,466	10,514	5,107		
375	Shop equipment	189,110	77.0	145,615	114,706	166,830	104,185		
376	Laboratory equipment	3,971	85.0	3,375	1,070	1,070	1,003		
377	Tools and work equipment	5,365	85.0	4,560	4,634	4,634	4,545		
379	Miscellaneous equipment	1,488	75.0	1,116	1,172	1,172	1,148	80.7	93,618
	Total other equipment	210,238	77.2	162,394	131,048	184,229	115,988	80.7	93,618
	Total general plant	1,379,451	71.08	980,492	1,195,753	1,351,886	1,008,831	56.74	572,381
	Redistributed construction costs	14,266,099	76.34	10,913,139	(Incl. Above)	(Incl. Above)			
	Total exclusive of working capital	97,340,374	65.09	63,303,607	69,735,638	105,101,912	51,792,003	54.62	28,200,647
	Working capital including materials and supplies	2,997,230		2,997,230	2,997,230	2,997,230	2,100,000		2,100,000
	Total	100,337,004	66.14	66,300,837	72,732,868	108,099,142	53,892,003	56.39	30,300,647



**EXHIBIT NO. 142.—COMPARISON OF DEPRECIATION AND RETURN RESULTING FROM RHODES AND  
FRENCH DEPRECIATION RATES, F. P. C. WITNESS DUNN**

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Classification	Original cost plant account balances at 12-31-38	Average dollar years 1898-1938	Rates of depreciation		Difference in net property	Net return on differ- ence in reserve balance	Difference in depre- ciation expense	Difference in expense and return
			French rate	Rhodes rate				
(a)	(b)	(c)	(d) Percent	(e) Percent	(f) Percent	(g)	(h)	(j)
<b>Production plant:</b>								
R-o-f-W and field line labor	\$4,257,881.05	\$69,873,412.65	4.17	2.04				
Structures	212,327.73	2,965,592.62	2.22	4.52	(\$9,330)	\$ (560)	\$743	\$183
Field line material, M. & R. sta. equip	7,934,169.06	174,092,406.61	2.22	2.04	313,366	18,802	(14,282)	4,520
Operated acreage	1,599,004.86	32,075,770.78	Depl.	Depl.				
Gas well equipment	7,610,509.75	202,418,225.61	2.50	Depl.				
Gas well construction	4,089,477.71	47,976,891.15	Depl.	Depl.				
Drill and cleaning equip	595,692.71	15,501,695.53						
<b>Total</b>	<b>26,509,062.87</b>					<b>18,242</b>	<b>(13,530)</b>	<b>4,703</b>
<b>Transmission plant:</b>								
R-o-f-W and main line labor	5,656,738.68	114,714,564.66	1.56	1.28	321,201	19,272	(14,271)	5,001
Structures	1,456,865.28	31,636,895.95	2.50	2.64	(44,012)	(2,641)	2,040	(601)
Mains material, M. & R. sta. equip	9,463,210.19	267,037,410.48	1.56	1.28	579,705	34,782	(26,503)	8,279
Compressor sta. equip	7,083,671.59	140,328,446.29	2.50	1.76	4,122,628	67,358	(61,469)	5,889
<b>Total</b>	<b>23,702,486.14</b>	<b>493,517,417.38</b>				<b>118,771</b>	<b>(100,203)</b>	<b>18,568</b>

**EXHIBIT NO. 142.—COMPARISON OF DEPRECIATION AND RETURN RESULTING FROM RHODES AND  
FRENCH DEPRECIATION RATES, F. P. C. WITNESS DUNN—Continued**

Classification	Original cost plant account balances at 12-31-38	Average dollar years 1898-1938	Rates of depreciation			Difference in net property	6% return on differ- ence in reserve balance	Difference in deprec- iation ex- pense	Difference in expense and return
			French rate	Rhodes rate	Difference in rates				
(a)	(b)	(c)	Percent	Percent	Percent	(g)	(h)	(i)	(j)
General:									
Structures and improvements	\$223,887.78	\$2,854,735.82	12.31	2.59	(.28)	\$7,993	\$480	\$932	\$152
Office furniture and equip	178,683.34	4,165,073.61	4.00	3.41	.59	24,574	1,474	(1,054)	420
Other equipment	115,988.50	6,879,956.99	3.67	3.29	.28	19,264	1,156	(325)	831
Communication equip.	248,975.74	4,735,226.42	3.85	4.00	(.15)	(7,103)	(428)	373	(53)
Teaming									
Autos and trucks	142,314.49	2,820,649.96							
Total	911,849.85						1,724	(374)	1,350
Grand total	50,923,308.96					2,312,300	138,737	(114,116)	24,621

$\frac{165,865.30}{2,854,736} = 2.31$  percent average annual rate.

**Sources of figures:**

- Column (b), Exhibit 76, page 6, Column (b).  
 Column (c), Examiners' work papers supporting Exhibit 61.  
 Column (d), Exhibit 65, pages 36, 37, and 38.  
 Column (e), Exhibit 24, Table A, page 19.

**Explanations:**

Figures in (i) in Column (g) indicate lower rate due to increase in reserve balance.

Figures in (i) in Column (h) indicate amount available for reduction due to decrease in rate base at 6 percent rate of return.

Figures out of (i) in Column (i) indicate increase in expense due to increase in depreciation rate, and consequently a decrease in amount available for reduction.  
 Figures out of (i) in Column (j) indicate decrease in amount available for reduction due to all factors involved in change of depreciation rate.

2 Docket G-113

## HOPE NATURAL GAS COMPANY

*Comparison of depletion and return—Operated leaseholds*

Line No.	Operated leaseholds (a)	F. P. C. examiners' accounting method (b)	Rhodes' percent condition method (c)	Increased cost as recommended by F. P. C. examiners (d)
1	Original cost as at Dec. 31, 1938.....	\$1,599,005	\$1,684,636	
2	Accrued depletion as at Dec. 31, 1938.....	970,839	1,202,325	
3	Net original cost as at Dec. 31, 1938.....	628,166	482,311	\$145,855
4	6% return on net original cost.....	37,690	28,939	8,751
5	Depletion expense—average 1937-41.....	41,492	26,069	15,423
6	Amount of depletion and return.....	79,182	55,008	24,174

Source of figures:

	Exhibit	Page
Line 1, column (b).....	61	25
Line 1, column (c).....	37	50
Line 2, column (b).....	61	25
Line 2, column (c).....	Line 1 minus line 3.	
Line 3, column (b).....	61	25
Line 3, column (c).....	37	46
Line 5, column (b).....	78	54
Line 5, column (c).....	126	1

1 **EXHIBIT NO. 118.—ESTIMATED CAPITAL EXPENDITURES  
FOR PRODUCTION SYSTEM, TRANSMISSION SYSTEM,  
AND GENERAL PLANT DURING THE YEARS 1941-1943,  
INCLUSIVE, HOPE WITNESS TONKIN**

*Summary of estimated capital expenditures for production system, transmission system, and general plant during years 1941 to 1943, inclusive*

Item	1941	1942	1943	Total 1941-43
(1)	(2)	(3)	(4)	(5)
Production system.....	1,479,000	1,745,000	1,435,000	4,659,000
Transmission system.....	1,394,500	785,000	1,803,000	3,982,500
General plant.....	100,000	105,000	110,000	315,000
Total.....	2,973,500	2,635,000	3,348,000	8,956,500

[Pages 2 to 4 omitted.]

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1 **EXHIBIT NO. 62.—WORKING CAPITAL, F. P. C. WITNESS  
NICHOLS**

**WRITTEN STATEMENT**

**I—WORKING CAPITAL REQUIREMENTS**

The Federal Power Commission, under date of October 14, 1938, issued an order of investigation into and concerning all rates, charges, classifications, rules, regulations, practices or contracts of Hope Natural Gas Company. In accordance therewith, an examination of the accounts and records of Hope Natural Gas Company has been made, and, as a result, this report on the Working Capital requirements of the Company is submitted.

Schedule No. 1 is a summary of the working capital requirements, based on operating expenses as adjusted by the Examiners of Accounts for year 1939, plus an amount for a stock of Materials and Supplies, which results in total Working Capital as follows:

Materials and supplies.....	\$1,228,599
Cash working capital, based on operating expenses as adjusted.....	755,746
Cash working capital, based on exploration and development costs exclusive of abandoned leases.....	56,897
<b>Total working capital.....</b>	<b>2,041,242</b>

*Materials and Supplies.*—The allowance for Materials and Supplies in the amount of \$1,228,599 is based on the following:

Materials and supplies total per books as of Dec. 31, 1939.....	\$1,501,806.53
Less materials for resale.....	16,002.34
<b>Balance warehouse materials.....</b>	<b>1,485,714.19</b>
2 <b>Average monthly balance, 1939.....</b>	<b>1,435,599.00</b>
Less the following items approximated from Company's Exhibit No. 37:	
Distribution materials and supplies.....	\$75,000.00
Oil production materials and supplies.....	95,000.00
Value in excess of salvage on nonusable materials.....	37,000.00
	<b>207,000.00</b>
<b>Balance included in working capital.....</b>	<b>1,228,599.00</b>

The gross issues of Materials and Supplies during the year 1939 amounted to \$887,933.67, which indicates that the stock on hand as of December 31, 1939, was sufficient, on the average, to meet the requirements of the Company for a period of approximately 1 year and 8 months, without taking into consideration the materials and supplies that were returned to stock for salvage, etc.

The following table shows the extent to which the Materials and Supplies were issued during 1939 for various purposes:

TABLE NO. 1

Account	Amount	Percent of total
Miscellaneous gas revenues	\$5,784.31	.65
Operating expenses:		
Production operation	21,658.99	2.44
Production maintenance	34,669.91	3.90
Purchased gas expense	4,217.46	.48
Transmission operation	43,014.68	4.84
Transmission maintenance	44,491.50	5.01
Distribution expense	11,075.08	1.25
General expense	1,462.08	.16
Total operating expense	100,589.70	18.08
3 Clearing accounts	81,912.81	9.23
Construction work in progress	344,206.18	38.76
Retirement work in progress	122,579.97	13.81
Other work in progress	18,958.81	2.14
Cost of merchandise and jobbing	1,527.46	.17
Deferred debits and suspense	2,384.33	.27
Accounts receivable:		
Associated companies	130,893.90	14.74
Other	19,058.79	2.15
Expense of nonutility operations	36.41	
Total (gross issues)	887,933.67	100.00

Of the amount issued to Associated Companies, Hope Construction and Refining Company received \$92,261.88 and Reserve Gas Company received \$33,854.42. River Gas Company received \$4,655.41 and the balance of \$122.19 was issued to miscellaneous companies.

The allocation to Production and Transmission of the amount included in Working Capital for Materials and Supplies as shown in Schedule No. 1, Columns (g) and (h), is based on the ratio of the amount of materials and supplies used during the year 1939 for Production and Transmission expenses to the total materials and supplies charged to operating expenses, exclusive of Distribution expenses. This is illustrated by the following details:



Materials and supplies issued (Table 1)		Percent of total	Working capital allocation (Schedule 1)
Production operation.....	\$21,658.99		
Production maintenance.....	34,669.91		
Purchased gas.....	4,217.46		
Total production.....	60,546.36	40.9	\$302,497
Transmission operation.....	43,014.68		
Transmission maintenance.....	44,491.50		
Total transmission.....	87,506.18	59.1	726,102
Total production and transmission.....	148,052.54	100.00	1,228,599

4. It will be noted by reference to Table No. 1 above, that nearly 15% of the total issues during 1939 represented sales of material to associated companies, which includes the amount of approximately \$92,000 issued to Hope Construction and Refining Company, chiefly for oil operations. Relatively, this would indicate that about 15% of the materials and supplies on hand as of December 31, 1939, or about \$215,000 is held for the benefit of associated companies. However, the only amount deducted for such items is \$95,000, as shown in the footnote of Schedule No. 1, indicated as "Oil Production Materials and Supplies."

5. *Operating Revenue Deductions.* The Operating Revenue Deductions are shown in Schedule No. 1 per Company books exclusive of Depreciation and Depletion. Examiners' adjustments have been applied to the book amounts and the resulting adjusted total is \$13,160,959.35. The adjusted Administrative and General Expenses amounting to \$808,908 have been allocated for the purpose of this report to Production, Transmission and Distribution Expenses in the manner shown by Schedule No. 2. The allocations are on various bases as described in the schedule, the most of which, it will be noted, are on the basis of all direct charges prior to the allocation.

Certain items have been eliminated from the Operating Revenue Deductions, or given special treatment in this report for various reasons, each of which will be separately commented upon in the order in which they appear in Schedule No. 1, as follows:

*Taxes.*—No allowance of cash working capital has been made to provide for the payment of taxes, because all taxes were paid long after the receipt of revenues. Table 2, which follows, shows the accumulation of tax accruals per books during the year 1939

and the accumulated payments of tax assessments. This table shows a range of accruals in excess of the payments from approximately \$96,000 to over \$761,000. The latter represents the balance at December 31, 1939, and the former at January 31, 1939:

6

TABLE No. 2

[Accumulated to End of Month]

Month	Accruals	Payments	Balance
January	\$95,817.83		\$95,817.83
February	191,635.66	\$6,004.82	185,630.94
March	287,453.49	12,085.92	275,367.57
April	383,271.32	124,807.17	258,464.15
May	479,089.15	130,862.43	348,226.72
June	668,885.51	147,134.61	521,750.90
July	783,890.27	228,460.21	555,430.06
August	898,895.03	249,372.41	649,522.62
September	1,013,899.72	256,327.08	757,572.71
October	1,157,890.92	704,569.59	453,321.33
November	1,301,882.05	711,560.98	590,321.07
December	1,479,703.93	718,524.79	761,179.14

The foregoing table does not take into consideration the accumulation of tax accruals in excess of payments as of January 1, 1939, which amounted to \$476,586.38. The bulk of this balance represented West Virginia property taxes for the last half of the year 1938, which were not paid until April, 1939. Thus, in addition to the amounts shown in the table, the Company had funds during the months of January to March, inclusive, that had been accumulated for tax purposes, amounting to approximately \$475,000.

The difference between the accumulated accruals as of December 31, 1939 (\$1,479,703.93) as shown in Table No. 2, above and the amount of taxes charged to Operating Revenue Deductions, per books (\$1,436,731.75) represents social security taxes charged to Work in Progress, Accounts Receivable, etc.

*Gas Well Royalties.*—The Gas Well Royalties are given special treatment for the purpose of this report, inasmuch as they are practically all paid in advance for periods varying from three months to one year.

7 The Royalty account was examined for the purpose of segregating the amounts thereof that were paid monthly, quarterly, semi-annually and annually. Following is Table No. 3 which shows the amounts so segregated, and while it does not purport to be accurately distributed to the last dollar, it is considered

by the Examiners of Accounts to be sufficiently accurate for the purpose intended:

TABLE No. 3

[Periods Paid]

	Monthly not in advance	In advance		
		Quarterly	Semi-annu- ally	Annually
Gas well royalties, paid as gas well rental		\$513,865.82	\$3,587.50	\$224,589.80
Royalties paid on the basis of production	11,794.56			
Sundry cash payments		14,749.28		
Checks returned		(12,759.61)		
Sundry transfers and credits		(6,250.52)		
Sundry charges	118.90	569.31		
Rentals due in 1939, but payment deferred		3,120.72		
Payments in lieu of drilling:				
Unoperated acreage		52,742.60		4,227.50
Operated acreage		4,362.00	250.00	13,943.75
Total	11,913.46	570,339.60	3,837.50	242,761.06

Included in the "Sundry Charges" are certain items of gas in lieu of royalties. Although such expense items do not represent an expenditure of cash, the amount is negligible for the purpose of this report. It will also be noted that certain payments have been deferred, which fact was disregarded for the purpose of this report.

8 The provisions for cash working capital based on the above enumerated expenditures is as follows:

Period	Amount	Working capital	Proportion of working capital to total
Monthly, not in advance	\$11,913.46	\$962.79	8.33%
Quarterly, in advance	570,339.60	142,584.90	25.00%
Semiannually in advance	3,837.50	1,918.75	50.00%
Annually in advance	242,761.06	242,761.06	100.00%
Total	828,851.62	388,257.50	

*Gas Used in Company Operations.*—The entire amount charged and credited to Operating Expenses for gas used in Company operations is eliminated because the cost of producing and transporting said gas is reflected in the various operating expenses. The credit slightly exceeds the charges for this item, the difference being rep-

resented by charges for gas to accounts other than operating expenses. Some such charges were made to clearing accounts, a part of which would, in the ordinary course of the Company's accounting procedure, be transferred to the operating expenses. However, the necessary mechanics of determining the exact amount is not commensurate with the value of the results.

*Depreciation on transportation equipment, well tools, etc., charged to operating expenses through clearing accounts.*—The amount determined by the Examiners of Accounts for this elimination is on an overall average basis, and was obtained after analysis of all clearing accounts. The percentage of the charges for depreciation to the total charges in each clearing account was applied to the various amounts that were cleared to operating expenses from said accounts. The result was the amount used to represent the charges for depreciation included in operating expenses. The amount eliminated (\$23,344.27) represents a proportionate part of the following charges as developed in Table No. 4.

9	Depreciation on transportation equipment, charged direct to Account 903.1 Transportation, Expense, Clearing.....	\$23,773
	Depreciation on shop equipment, charged direct to Account 903.2 Clarksburg Garage Shop, Clearing.....	1,529
	Depreciation on drilling and cleaning equipment, charged direct to Account 908, Drilling and Cleaning Equipment, Clearing.....	18,374
	Total .....	43,677

Following is Table No. 4, which is a summary of the amount charged to operating expenses from each clearing account, and the approximate amount of depreciation included therein:

TABLE No. 4

Clearing account	Charges to operating exp.	Less use of hired autos	Balance	Depreciation includes	
				Percent	Amount
902 .....	\$8,012.37		\$8,012.37	1.19	\$95
903.1 .....	119,466.23	\$32,016.95	87,449.28	11.75	10,275
903.2 .....	44.48		44.48	6.80	3
905.1 .....	75,592.45		75,592.45		
905.2 .....	22,885.99		22,885.99	0.11	25
907.1 .....	29,093.09		29,093.09		
907.2 .....	14,674.23		14,674.23		
908 .....	4,767.80		4,767.80	43.28	2,063
909 .....	148,663.89		148,663.89	0.66	941
910 .....	237,427.32		237,427.32	4.17	9,900
Total .....	600,627.85	32,016.95	568,610.90		25,344

The depreciation charged to clearing accounts other than 903.1, 903.2 and 908 are represented by amounts transferred to other clearing accounts from those to which the depreciation charges were originally made.

*Purchased Gas.*—No allowance for working capital has been made to provide for the purchase of gas because large sums are collected from associated utilities to which gas is sold, in advance of the date on which payments are made for the gas purchased. Payment for a comparatively small portion of gas purchased is due on the 10th of the month following the purchase and the balance is due on the 20th.

Two schedules are presented herein, being Schedules Nos. 3 and 4, to show respectively, the average lag in cash receipts from associated utilities for gas sales, and the average lag in payments for gas purchased. The lag is calculated, in each case from the 15th of the month during which gas was sold and purchased. These schedules show that there was, on the average, a period of 4 days between the receipt of an aggregate sum of \$13,930,353.97 for gas sales to associated gas utilities, during 1939, and the payment of an aggregate amount of \$7,632,030.69 (unadjusted) for gas purchased, during that year.

The Examiners of Accounts have no intention, by this elimination, to intimate that dollars are "tagged" for specific purposes. But a month to month study of the cash receipts from sales of gas to the associated utilities, as compared with the payments for gas purchased, shows that enough revenues were received from these sources alone to pay for gas purchased in advance of the date such payments were due, with substantial amounts in excess of the cash requirements therefor.

For the purpose of illustrating the foregoing facts, details are shown in Table No. 5 which follows. It will be noted that each month is shown independently with no balances carried over to the next month. The table shows the recorded dates the various cash items were received, the dates on which payments were made for gas purchased, and the excess of cash receipts over the cash disbursements during the month as of each date shown.

TABLE No. 5

Date 1939	Cash receipts			Cash disbursements	Balance
	East Ohio Gas Co.	The Peoples Gas Co.	River Gas Co.		
Feb. 10				\$12,779.38	\$12,779.38
14	\$800,000.00				787,229.62
16	400,000.00				1,187,229.62
20		\$122,046.54		741,742.86	867,524.30
21	109,060.47				676,584.77
24			\$17,359.30		693,944.07
Mar. 10				13,102.60	17,102.60
13	800,000.00				788,897.40
20	200,000.00	163,397.85		695,953.19	454,342.06
23			16,175.60		470,517.66
24	287,947.38				758,465.04
Apr. 10	400,000.00			14,694.00	385,306.00
17	800,000.00				1,185,306.00
20		163,720.10		735,760.86	103,265.24
21	90,867.82				704,133.06
25			10,469.70		714,642.76
May 1	200,000.00				200,000.00
10				13,066.40	186,933.60
11	400,000.00				586,933.60
15	400,000.00				986,933.60
19		99,350.02			1,086,283.62
20				715,893.60	370,390.02
22	189,746.76				560,136.78
24			7,937.65		568,074.43
June 5	200,000.00				200,000.00
10				13,388.55	186,611.45
15	700,000.00				886,611.45
20		115,573.54		531,384.66	470,800.33
21	157,940.19				628,740.52
23	1,390.40				630,130.92
July 10				9,084.36	9,084.36
11	200,000.00				100,915.64
17	500,000.00				600,915.64
20	61,396.66	83,968.50		463,057.84	373,222.96
24			96.25		373,319.21
Aug. 10				9,474.30	9,474.30
14	500,000.00				490,523.70
18	155,429.39				645,953.09
19					198,296.65
21		72,338.81		447,688.41	270,605.46
23			389.55		270,995.01
12 Sept. 9				\$6,513.15	\$6,513.15
11	\$200,000.00				193,481.85
18	300,000.00				493,481.85
20		77,750.37		447,090.76	121,141.45
21	192,935.64				317,082.10
26			442.05		317,524.15
Oct. 9	200,000.00				200,000.00
10				4,348.57	195,651.43
16	406,000.00				595,651.43
19	128,184.85				723,836.28
20		364,687.28	593.95	446,969.80	382,147.71
Nov. 6	200,000.00				200,000.00
10				8,276.61	191,723.39
13	300,000.00				491,723.39
20	421,469.85	94,942.16		517,606.80	490,528.60
22			3,206.35		493,734.95



TABLE NO. 5—Continued

Date 1939	Cash receipts			Cash dis- bursements	Balance
	East Ohio Gas Co.	The Peoples Gas Co.	River Gas Co.		
Dec. 4	\$300,000.00				\$300,000.00
9				\$14,427.64	285,572.36
18	400,000.00				685,572.36
20		\$157,286.36		769,702.68	73,156.04
21			\$8,773.80		81,929.84
28	450,630.52				532,560.36

Italic figures denote deficit.

The gas sales contracts with the three companies shown in the foregoing table provide for payment as follows:

The East Ohio Gas Company, 75% on or before the 15th of the month following the purchase; balance on the 27th.

The Peoples Natural Gas Co., On or before the 30th of the month following the purchases.

River Gas Company, 30th of the month following purchases.

Cash receipts as of the 20th of each month from sales to the three companies shown in the foregoing table are in excess of the payments on the 20th of each month for gas purchased in amounts varying from \$73,100 in December to \$613,200 in April, with a monthly average of \$375,500.

*Distribution Expenses.*—All direct Distribution Expenses plus an amount allocated from Administrative and General Expenses have been eliminated for the purpose of this report. It will be noted that the adjusted Distribution Expenses amount to \$629,332.07 and that the amount eliminated under the caption "Distribution Expenses" is \$625,722.52. The difference of \$3,609.55 is included in the deductions under the two captions "Gas Used in Company Operations" and "Depreciation on Transportation Equipment, etc." Nothing has been eliminated to cover the cost of producing gas that was sold in West Virginia.

*Balance of Operating Expenses.*—The balance of Operating Expenses for the year 1939 after elimination of the various items for special treatment as noted is \$2,939,902.26. This is shown in Schedule No. 1.

The sum of \$367,488 has been included in the working capital to provide for this balance of operating expenses, which represents 12½ percent thereof; or the average amount required for a period of 45 days. This, in the opinion of the Examiners of Accounts, represents a liberal allowance to cover expenses, as

adjusted, which are to be paid in cash prior to the receipt of revenues.

*Provision for Exploration and Development Costs.*—The Exploration and Development Costs as adjusted by the  
14 Examiners of Accounts amounted to \$500,343.58 during the year 1939, as follows:

Item	Amount
Delay rentals .....	\$407,284.24
Nonproductive well drilling .....	47,895.17
Cancelled and surrendered leases .....	45,164.17
Total .....	500,343.58

Working Capital has been provided on the basis of 121½ (or an average of 45 days' operations) on the charges for Delay Rentals and Nonproductive Well Drilling, which amounted to an aggregate sum of \$455,179.41 during the year 1939. The amount included for working capital is \$56,897.

*Total Working Capital.*—The total working capital as shown by Schedule No. 1 is \$2,041,242, which, in the opinion of the Examiners of Accounts, is a liberal amount to be allowed for the Company's requirements in its export business. In proposing this allowance for Working Capital, the Examiners of Accounts have taken into consideration the fact that the Company accumulates substantial cash funds through its Depreciation, Depletion and Tax accruals. It appears that these accruals would provide the Company with funds far in excess of any possible requirements for minimum bank balances.

The general cash funds of the Company, exclusive of its local collection depositories at the end of each month during the years 1939 and 1940, were as follows:

Month	1939	1940
January .....	\$170,892.74	\$221,084.17
February .....	470,283.37	321,931.87
March .....	186,685.57	287,048.49
April .....	134,093.52	506,168.50
May .....	137,618.31	299,954.17
June .....	63,659.24	280,226.35
15 July .....	325,670.74	129,026.72
August .....	365,980.55	203,938.80
September .....	1,737,796.85	555,115.10
October .....	1,666,903.79	202,555.33
November .....	416,474.37	417,720.39
December .....	493,911.81	386,113.88

*Average Lag in Cash Receipts and Disbursements.*—Schedules Nos. 3 and 4 show the average lag in cash receipts from sales of gas to associated companies and the average lag in the payments for gas purchased. These schedules, which have previously been referred to, indicate that the average date on which the revenues were received is the 16th of the month (31 days' lag), following the rendition of services and the average payment date for gas purchases was the 20th of the month (35 days' lag).

Further studies were made for average dates of cash receipts and disbursements, which show the following statistics:

Item	Average date <sup>1</sup>
Receipts from nonassociated gas companies	21st
Receipts for gas sales in West Virginia	15th
General cash disbursements for miscellaneous charges to operating expenses	10th
Payrolls	1st

The average date as shown for general cash disbursements was determined by a study of several vouchers charged to operating expenses with an effort on the part of the Examiners of Accounts to examine a representative cross-section of vouchers paid during the year 1939.

## 16 II—WORKING CAPITAL PER COMPANY BOOKS

The working capital according to the Company's books at December 31, 1937, 1938, and 1939, is shown in Schedule No. 5; which is summarized as follows:

Date	Excess current assets over current liabilities	Temporary cash investments	Balance of available working capital
Dec. 31, 1937	\$15,747,240.60	\$14,511,245.26	\$1,235,995.34
Dec. 31, 1938	13,489,356.53	11,555,577.21	1,933,779.32
Dec. 31, 1939	13,404,772.74	11,909,891.95	1,494,880.79
Average	14,213,783.00	12,658,904.00	1,554,879.00

The temporary cash investments as shown in the above table are presented in detail in Schedule No. 5 and are represented chiefly by investments in United States Government Securities. It will be noted that the only change in the Company's holdings of such securities during 1938 was the disposal of \$900,000 of 21% Notes due in 1939 and practically the same amount (\$921,796.88) in-

<sup>1</sup> Date of month following rendition or receipt of services.

vested in 2½% Bonds due in 1950-52. During 1939 the Company disposed of Government securities of a book value of \$6,484,296.88 and invested \$5,399,702.00 in additional Government securities. This resulted in a decrease of \$1,084,594.88 in book value of investments of this class.

In addition to the investments in Government securities, the Company advanced various sums from time to time to Standard Oil Company of N. J., and the balance at the close of each of the three years above mentioned was as follows:

Dec. 31, 1937.....	\$3,506,479.63
Dec. 31, 1938.....	521,983.45
Dec. 31, 1939.....	1,960,893.07

17 Interest was paid by Standard Oil Company of N. J. at the rate of ½% per annum on these advances during the year 1939. Interest rates for prior years were not investigated.

The advances during the year 1939 ranged in amounts from \$200,000 to \$1,500,000 with an aggregate total of \$9,350,000. Withdrawals ranged from \$100,000 to \$650,000 during the year, plus \$1,800,000 withdrawn on December 20, 1939. The total withdrawals during the year amounted to \$7,925,224.79, which resulted in an increase in the amount of the advances as of December 31, 1939, over the amount at December 31, 1938, of \$1,424,775.21, as compared with the decrease in investments in Government securities of \$1,084,594.88. The average end-of-the-month balance of the advances was \$2,879,875.08 during the year 1939.

The balance of the working capital per Company's books at December 31, 1939, exclusive of the investments in Government securities and the advances to Standard Oil Company of N. J. is \$1,494,880.79 as shown above, which is represented, chiefly, by the following items:

Cash and working funds.....	\$548,043.19
Accounts receivable.....	2,276,214.51
Materials and supplies.....	1,561,806.53
Total.....	4,326,064.23
Accounts payable.....	2,024,630.90
Taxes accrued.....	750,830.19
Customers' deposits.....	95,423.21
Total.....	2,870,884.30
Balance.....	\$1,455,179.93

18 *Source and Disposition of Funds.*—Schedules Nos. 6 and 7 are presented to show respectively the various changes in the assets and liabilities during the year 1939 and the sources from which cash funds were received and the disposition thereof during that year. Schedule No. 6 shows the current assets and current liabilities in detail as of December 31, 1938, and 1939, prior to the merger of Reserve Gas Company and the increase or decrease in each account during the year 1939. It also shows comparable balance sheet data as of the latter date after the merger.

Schedule No. 7 shows that net cash funds received from all sources amounted to \$3,817,582.33 plus a reduction of working capital of \$84,563.79 or a total of funds provided amounting to \$3,902,146.02.

These funds were used chiefly for:

Plant additions (gross) .....	\$945,980.05
Dividends on Common Stock .....	2,796,930.00
Total .....	3,742,910.05

Clarksburg, West Virginia. March 13, 1944.

SAMUEL I. NICHOLS,

Samuel I. Nichols,

*Senior Examiner of Accounts.*

EDWARD L. DUNN,

Edward L. Dunn,

*Examiner in Charge of Field Assignment.*

Approved:

W. E. BAKER,

W. E. Baker,

*Chief Accountant.*

CHAS. W. SMITH,

Chas. W. Smith,

*Chief, Bureau of Accounts, Finance and Rates.*

[Pages 19 to 26 omitted.]

1 **EXHIBIT NO. 67.—COMPARATIVE INCOME STATEMENTS  
FOR THE YEARS 1937, 1938, AND 1939, VOLUME I, F. P. C.  
WITNESSES NICHOLS AND REINHARD**

**WRITTEN STATEMENT**

The Federal Power Commission, under date of October 14, 1938, issued an order of investigation into and concerning all rates, charges, classifications, rules, regulations, practices, or contracts of the Hope Natural Gas Company. In accordance therewith, an examination of the accounts and records of Hope Natural Gas Company has been made, and as a result, this report on the determination of income is submitted.

*General.*

This exhibit presents a comparative income statement for the years 1937, 1938, and 1939 as adjusted by the examiners.

The report is in two parts. Volume I sets forth the income statement per books, reclassified, and as adjusted, with supporting and detailed schedules. Volume II contains the adjusting entries, and summaries, prepared by several Examiners of Accounts.

The schedules and adjustments concerning the revenues and taxes have been prepared by Mr. Nichols. The schedules and adjustments concerning operating expenses have been prepared by Mr. Reinhard. In order to present, in this exhibit, a complete reference to all adjustments necessary in the determination of income, adjustments prepared by other examiners are included. In each such instance, the explanation of the adjustment indicates the source; therefore, the details and testimony will be set forth under the other exhibits referred to.

*Reclassification.*

During the year 1939 Hope Natural Gas Company used an accounting classification in accord with the present Uniform  
2 System of Accounts. To present a comparison for the three years by the detail accounts and amounts, the examiners have reclassified 1937 and 1938 substantially in accordance with the 1939 accounts, without, in any manner, changing the net



operating income comparable to the 1939 classification or net income transferred to surplus. The result of the reclassification is shown in Schedule 1, columns (c) and (g), entitled "Per Books, Reclassified." The reclassification is shown in account detail by Examiners' Entries No. 251 covering Gas Service Revenues, No. 252 covering Other Gas Revenues, No. 253 covering Operating Expenses, No. 254 and 256 covering Other Income and No. 255 covering Gross Income Deductions. The manner in which the reclassification entries are prepared and referenced to the book accounts, obviates the necessity for setting up a detailed income statement for the years 1937 and 1938, by the old account descriptions and amounts.

#### *Description of Schedules:*

Schedule No. 1 is a Comparative Income Statement, Reclassified for the years 1937 and 1938, showing adjustments made thereto for the years 1937, 1938, and 1939. This schedule sets forth, in condensed form, the amounts as recorded on the books of the Company, reclassified to conform to the 1939 Classification of Accounts as prescribed by the Federal Power Commission, the examiners' adjustments made thereto and the resulting amounts after application of the adjustments.

Attention is directed to the Net Utility Income per books, (columns (c), (g), and (k)) and as adjusted (columns (f), (j), and (n)) for the respective years covered in this report.

It will be noted that an increase develops in each year, which is accounted for and described as follows:

Particulars	Net utility income		
	1937	1938	1939
As adjusted	\$3,565,310.34	\$1,469,779.00	\$3,304,956.69
Per Books	2,364,424.40	884,391.41	2,283,398.05
Increase	1,200,885.94	585,417.59	1,021,558.64

These increases are accounted for by a decrease in Operating Revenues, Operating Revenue Deductions, setting up Nonrecurring Expenses and Decrease in Exploration and Development Costs for years 1937 and 1938 and an increase in the year 1939. These groups of accounts are treated separately in the schedules dealing with detailed revenues, expenses and exploration and development costs that follow in this report, and are summarized below:

Particulars	Examiners' adjustments—Increase or (decrease)*		
	1937	1938	1939
Operating revenues.....	\$1,479,959.52	\$730,618.48	\$558,122.58
Operating revenue deductions.....	2,608,406.31	1,306,773.37	1,624,132.62
Nonrecurring expenses.....	45,285.56	51,120.43	69,256.96
Exploration and development costs.....	117,721.71	60,583.13	45,164.20
Increase in net utility income.....	1,200,485.94	585,417.59	1,021,588.64

\* Italic figures denote decrease.

The increases arising from examiners' adjustments in net Income Transferred to Surplus, amounting to \$861,294.20 in 1937, \$300,929.98 in 1938, and \$734,354.92 in 1939 are summarized in Schedule No. 1A.

#### 4 Gas Service Revenues.

Schedule No. 4 (sheets 1, 2, and 3) shows the gas service revenues per books and as adjusted by the Examiners of Accounts for the years 1939, 1938, and 1937, respectively.

In order that the years 1937 and 1938 may be reasonably comparable with the year 1939, the book figures have been reclassified as shown in columns (c), (d), (e), and (f) of Schedule No. 4, sheets 2 and 3.

In addition to the dollar amount of the gas sales, the schedule shows the number of accounts at December 31 of each of the three years, the volume on the sales contract basis and the average rate per Mcf. These data were taken from the Company's Analysis of Gas Earnings.

A summary of the total gas service revenues, as adjusted, showing the amount of sales in the State of West Virginia and those outside the state is shown in the following table:

Year	Total adjusted gas service revenues	Sales in West Virginia	Sales outside West Virginia
1937.....	\$19,238,569.64	\$3,427,958.68	\$15,810,610.96
1938.....	16,513,210.81	2,736,147.17	13,777,063.64
1939.....	17,898,970.74	3,032,076.63	14,866,894.11

The above data expressed in percentages to total sales are as follows:

Year	Total adjusted gas service revenues	Sales in West Virginia	Sales outside West Virginia
	Percent	Percent	Percent
1937.....	100	17.8	82.2
1938.....	100	16.6	83.4
1939.....	100	16.8	83.1

5 The sales outside the State of West Virginia were to the following companies as shown in Schedule No. 4:

Fayette County Gas Company.

The Manufacturers Light & Heat Company.

The East Ohio Gas Company.

The Peoples Natural Gas Company.

The River Gas Company.

The first two companies in the above list are not associated with Hope Natural Gas Company; the remaining three companies are affiliated.

The examiners' adjustments to Gas Service Revenues comprise the following:

1939: Elimination of gas sales to Northwestern Ohio Natural Gas Company on December 30 and 31, 1939.

All years; (a) Elimination of refund to The Peoples Natural Gas Company for compressing gas from revenues and from compressor station expense.

(b) Elimination of the value of exchange gas delivered to Hope Construction and Refining Company.

(c) Elimination of transaction with Hope Construction and Refining Company for operation of gasoline plants as set forth in a separate study. For the purpose of this report, certain operations of Hope Construction and Refining Company have been consolidated with those of Hope Natural Gas Company and reflected as Residuals Credit instead of sales of gas, royalty income, etc.

1937 and 1938: (a) Transfer of customers' forfeited discounts and penalties to Other Gas Revenues.

6 (b) Elimination of the value of exchange gas delivered to United Fuel Gas Company. This has been credited to Gas Purchased to offset the amount of gas revenues from The Manufacturers Light & Heat Company. There was no exchange gas of this nature recorded as sales and purchases in 1939.

Following Schedule No. 4, is Sub-schedule No. 4-A, sheets 1 to 8, inclusive, which show further details with reference to the Gas Service Revenues for the year 1939. These sheets show the various towns and districts in which the domestic, commercial and industrial sales were made, and the various companies to which gas was sold for resale.

*Other Gas Revenues and Other Income.*

Details of Other Gas Revenues and Other Income for the years 1937, 1938 and 1939, per books, and as adjusted by the examiners of accounts are shown in Schedules Nos. 2 and 1, respectively.

The adjustments to the classes of income as shown in these Schedules are as follows:

1937 and 1938: Transfer of Customers' Forfeited Discounts and Penalties from Gas Service Revenues to Other Gas Revenues.

All years: (a) Elimination of revenue from processing natural gas. This has been adjusted through the Residuals Credit account as above described in connection with the operations of Hope Construction and Refining Company.

7 (b) Management fees have been transferred from Miscellaneous Gas Revenues to the various operating expense accounts to offset the costs of the services rendered.

(c) Transfer of tax adjustments to the credit of Taxes. These tax adjustments represent a share of West Virginia gross sales and income taxes that are imposed by the Company on its customers in conformity with the provisions of certain sales contracts.

(d) Elimination of book profit on property retired, sold, or abandoned, recorded on the books as Miscellaneous Nonoperating Revenues. The examiners of accounts have transferred these credits to the Reserve for Depreciation.

Schedule No. 5 is presented for the purpose of showing the various classes of nonoperating revenues as reflected by the Company's books for the years 1937 and 1938, and the manner in which the examiners of accounts have reclassified the items to bring them into comparable form with those as recorded for the year 1939.

#### *Operating Expenses.*

Schedule No. 3 is a detailed statement by accounts of Operating Expenses, Reclassified for the years 1937 and 1938, showing adjustments made thereto for the years 1937, 1938, and 1939. This schedule shows the totals in each group of accounts and may be summarized accordingly to give the effect of the adjustments made to them:

8	Particulars	Net adjustments—Increase or decrease*		
		1937	1938	1939
	Production	\$30,057.92	\$174,191.68	\$302,107.19
	Other production	1,130,748.61	498,415.24	115,882.70
	Transmission	716,806.28	535,747.99	474,187.86
	Distribution	245,086.93	221,229.83	233,057.94
	Customers' accounting and collection	65.04	1,240.87	2,012.83
	Sales promotion			
	Administrative and general	256,556.49	293,068.71	744,905.98
	Total operating expenses	7,828,831.50	933,049.30	1,448,087.94

\*Italic figures denote decrease.

By reference to Schedule No. 1 it will be noted that under the heading of Operating Revenue Deductions are included Accounts 503.1, Depreciation, 503.2, Amortization and Depletion of Natural Gas Lands and Land Rights, 504, Amortization of Other Limited-Term Gas Investments, and 507, Taxes. The net adjustments by the examiners in these accounts are as follows:

Account	Net adjustments—Increase or decrease*		
	1937	1938	1939
503.1	\$196,800.96	\$224,064.08	\$14,640.95
503.2	17,761.53	685.96	18,372.47
504		6,611.66	
507	265,055.32	143,734.18	209,058.10
	779,577.81	373,724.90	178,014.68

\* Italic figures denote decrease.

#### Taxes.

Sheets 1, 2 and 3 of Schedule No. 8 show details with respect to the taxes accrued and/or paid by the Company during the years 1939, 1938 and 1937, respectively.

Columns (b), (c), and (d) show the total amount of taxes paid or accrued during each year, separating the amounts applicable to the current year from those applicable to other years. Column (e) shows the amount of social security taxes that were charged to accounts other than Taxes, such as Work in Progress, Accounts Receivable, etc. The balance charged to Taxes per books is shown in column (f).

It will be noted that the examiners' adjustments are shown in four columns. These are shown in this manner in order to separate the various adjustments to certain categories for ready reference. It will also be noted that the adjustments in three of the columns, namely, (g), (h), and (i) have been applied to the book amounts and an extension has been made to column (j), prior to the deduction of certain additional adjustments shown in column (k).

The taxes have been extended in the above described manner for a specific purpose. The amounts shown in column (j), (the first extension) are the actual taxes applicable to the operations for each of the years shown. The amounts shown in column (1), (Adjusted Taxes) represent the amounts of the corrected taxes after eliminating certain items shown in column (k), applicable to the following:

Specific distribution taxes:

Taxes not applicable to gas operations.



**Nonrecurring taxes.**

Estimated amount of state taxes applicable to property devoted to the transportation of coke oven gas.

The specific distribution taxes and taxes not applicable to gas operations are the same as those designated as such by the Company in its Exhibit No. 37 (see pages 25, 32, and 39 of that Exhibit for the years 1937, 1938, and 1939, respectively). The nonrecurring taxes are certain taxes imposed by the State of Pennsylvania prior to the removal of the Company's offices from Pittsburgh, Pennsylvania, to Clarksburg, West Virginia. The social security taxes imposed by the State of Pennsylvania have not been eliminated because it is the opinion of the examiners of accounts that additional taxes will be assessed in the State of West Virginia which will be about equal to those paid to the State of Pennsylvania on account of the employees who were transferred.

The taxes on property devoted to the transportation of coke oven gas have been estimated on an overall percentage basis of the totals of property and applicable taxes.

Subschedule No. 8-A (sheets 1, 2, and 3) is presented for the purpose of reconciling the taxes per books for the years 1939, 1938, and 1937, respectively, with the amount per Company's Exhibit No. 37, and an additional reconciliation with the total taxes applicable to operations as per final tax settlements.

It will be noted that the Company has adjusted the Federal Income Taxes for the purpose of its Exhibit No. 37 so as to reflect a rate of 18% in each of the years 1937, 1938, and 1939, instead of the actual rates paid (see note L at page 43 of Exhibit No. 37). This adjustment has not been made by the examiners of accounts. The Federal Income Taxes shown in the final columns of Schedules Nos. 8 and 8-A are the actual amounts assessed for the respective years, based on the entire net income of the Company, and, incidentally, include the tax on net income resulting from operations in West Virginia. The examiners of accounts

have made no attempt to separate the amounts of Federal Income Taxes that are applicable to net income from West Virginia sales from the amount based on interstate net income.

The amounts appearing as Nonrecurring Expenses are normal recognized operating expenses of the Company, and include such items as rent, taxes, and other miscellaneous amounts. They have been removed from the operating expenses as they principally represent costs incurred when the main office of the Company was



located at Pittsburgh, Pennsylvania, and are not expected to occur in the future.

Exploration and Development Costs appearing in Schedule No. 1 is the last group of accounts taken into consideration before arriving at the Net Utility Income. The net change in this group of accounts is as follows:

Account	Net adjustments—increase or decrease *		
	1937	1938	1939
510 .....	\$81,166.45	\$78,937.04	.....
511 .....	.....	.....	.....
512 .....	36,555.86	18,553.91	\$45,164.20
Total .....	117,721.71	60,583.15	45,164.20

\* Italic figures denote decrease.

The adjustments made to these accounts are discussed in a separate study that is entitled, Exploration and Development Costs.

Other Income appearing in Schedule No. 1 contains certain adjustments that include rearrangement of book profit on property retired, sold or abandoned, and taxes not applicable to natural gas operations.

12 Income Deductions appearing in Schedule No. 1 include adjustments made to revenue and operating expense accounts and the increase represents the net results of these accounting adjustments.

Volume II of this report, as stated hereinbefore, deals with adjustments made by the Examiners and includes a summary of all adjustments, together with adjusting entries and a detailed explanation of each.

Clarksburg, West Virginia, March 24, 1941.

SAMUEL I. NICHOLS,

Samuel I. Nichols,

*Senior Examiner of Accounts.*

WALTER C. REINHARD,

Walter C. Reinhard,

*Examiner of Accounts.*

EDWARD L. DUNN,

Edward L. Dunn,

*Examiner in Charge of Field Assignment.*

Approved:

W. E. BAKER,

W. E. Baker,

*Chief Accountant.*

CHAS. W. SMITH,

Chas. W. Smith,

*Chief, Bureau of Accounts, Finance and Rates.*

*Comparative Income Statement, Reclassified for the Years 1937*

No. Account	Account	1937			1938	
		Per books reclassified	Adjustments		As adjusted	Per books reclassified
			Dr.	Cr.		
(a)	(b)	(c)	(d)	(e)	(f)	(g)
	<i>I—Utility income</i>					
	Gas operating income					
501	Operating revenues	\$20,803,780.10	\$1,501,318.87	\$21,550.35	\$19,323,829.58	\$17,306,474.74
	Operating revenue de- ductions:					
502	Operating expenses	14,335,231.21	1,356,925.46	3,185,756.96	12,566,309.71	13,079,483.31
503.1	Depreciation	1,843,745.62		496,800.96	1,346,944.66	1,480,435.43
503.2	Amort. and depl. of F. N. G. L. & L. R.	88,465.39		17,761.53	40,703.86	50,722.15
504	Amort. of other limited term G. I.					7,425.00
507	Taxes	1,583,124.94		265,015.32	1,318,109.62	1,145,422.31
	Total operating revenue deductions	17,820,567.16	1,356,925.46	3,965,344.77	15,212,157.85	15,749,508.20
	Net operating revenue	2,983,221.94	2,858,444.33	3,986,894.12	4,111,671.73	1,556,966.54
	Nonrecurring ex- penses		45,285.56		45,285.56	
	Utility income	2,983,221.94	2,903,729.89	3,986,894.12	4,066,386.17	1,556,966.54
	<i>II—Exploration and develop- ment costs</i>					
510	Delay rentals	550,370.78		81,166.45	469,204.33	415,484.56
511	Nonproductive well drill- ing	27,743.54			27,743.54	88,401.77
512	Abandoned leases	40,683.22		36,555.26	4,127.96	40,678.77
	Total exploration and develop. costs	618,797.54		117,721.71	501,075.89	672,625.13
	Net utility income	2,364,424.40	2,903,729.89	4,104,615.83	3,565,310.34	884,341.41
	<i>III—Other income</i>					
520	Income from misc. job, and cont. work	8,139.56			8,139.56	2,514.24
521	Income from nonutility operations					
522	Revenues from lease of other phys. prop.					
523	Dividend revenues	80,076.00			80,076.00	200,072.00
524	Interest revenues	314,613.52			314,613.52	376,969.51

## GAS COMPANY

and 1938, Showing Adjustments for the Years 1937, 1938, and 1939

1938				1939		
Adjustments		As adjusted	Per books	Adjustments		As adjusted
Dr.	Cr.			Dr.	Cr.	
(h)	(i)	(j)	(k)	(l)	(m)	(n)
\$751,929.06	\$21,310.58	\$16,575,856.26	\$18,455,789.07	\$488,157.92	\$35.01	\$17,967,666.19
1,180,778.59	2,122,827.89	12,146,434.01	13,055,740.39	849,712.30	2,292,800.24	11,607,652.45
	224,964.08	1,262,391.35	1,200,000.00	14,640.95		1,214,640.95
685.69		31,407.84	18,400.00	18,372.47		36,772.47
	6,611.56	813.44	6,369.47			6,369.47
	143,734.12	1,001,688.19	1,436,731.75		269,058.10	1,227,673.65
1,190,464.28	2,497,237.65	14,442,734.83	15,717,241.61	877,725.72	2,501,858.34	14,093,108.99
1,942,363.34	2,518,548.23	2,133,121.43	2,738,547.46	1,365,883.64	2,501,893.38	3,874,557.20
51,129.43		51,120.43		69,256.90		69,256.90
1,903,513.77	2,518,548.23	2,082,001.00	2,738,547.46	1,435,116.54	2,501,893.38	3,805,300.30
	78,937.04	496,547.55	407,284.24			407,284.24
		86,461.77	47,895.17			47,895.17
18,553.91		50,242.68		45,164.20		45,164.20
18,553.91	78,937.04	612,242.09	455,179.41	45,164.20		560,343.61
2,012,067.68	2,597,485.27	1,460,759.09	2,282,368.05	1,480,304.74	2,501,893.38	3,304,956.09
		2,514.24	1,383.58			1,383.58
			728.69			728.69
		45	747.00			747.00
		291,072.09	72.00			72.00
		316,369.51	256,774.03			256,774.03

## Comparative Income Statement, Reclassified for the Years 1937

Account No.	Account	1937				1938
		Per books reclassified	Adjustments		As adjusted	Per books reclassified
			Dr.	Cr.		
(a)	(b)	(c)	(d)	(e)	(f)	(g)
	<i>III—Other income—</i>					
526	Miscellaneous nonoperating revenues.	\$37,283.68	\$16,453.51		\$50,820.17	\$28,390.51
527	Nonoperating revenue deductions.		2,313.63		2,313.63	
	Total other income	479,132.76	18,777.14		451,335.62	547,316.26
	Gross income	2,834,537.16	2,922,507.03	\$4,104,615.83	4,016,645.96	1,431,657.67
	<i>IV—Income deductions</i>					
535	Other interest charges	7,306.51			7,306.51	9,001.71
536	Interest charged to construction—credit.					
537	Miscellaneous amortization.	4,740.72			4,740.72	4,740.72
538	Miscellaneous income deductions.	19,057.09	320,814.60		339,872.59	19,469.71
	Total income deductions.	31,105.22	320,814.60		351,919.82	33,002.18
	Net income transferred to surplus.	2,803,431.94	3,243,321.63	4,104,615.83	3,664,726.14	1,398,655.49

NOTE.—Expenditures made in connection with company's reclassification of property accounts and river rate investigation are not included in this statement.

and 1938, Showing Adjustments for the Years 1937, 1938, 1939

1938			1939			
Adjustments		As adjusted	Per books	Adjustments		As adjusted
Dr.	Cr.			Dr.	Cr.	
(h)	(i)	(j)	(k)	(l)	(m)	(n)
\$910.36		\$27,450.25	\$296.02			\$296.02
2,971.77		2,971.77	87.09	\$2,741.31		2,829.39
3,882.03		543,434.23	258,455.74	2,741.31		255,714.43
2,015,949.71	\$2,597,485.27	2,013,193.23	2,541,823.79	1,483,046.05	\$2,500,893.38	3,996,671.12
		9,091.75	7,702.92			7,702.92
			7,555.85			7,555.85
		4,740.72	4,740.72			4,740.72
280,605.58		299,775.29	7,662.36	284,492.41		292,154.77
280,605.58		313,607.76	12,840.15	284,492.41		297,332.56
2,296,555.29	2,597,485.27	1,999,585.47	2,528,983.64	1,767,538.46	2,501,893.38	3,263,335.56

Italic figures denote decrease.

## HOPE NATURAL GAS COMPANY

*Summary of Examiners' Adjusting Entries for the Years 1937, 1938, and 1939*

Account No.	Income accounts	Sched. ref.	1937	1938	1939
(a)	(b)	(c)	(d)	(e)	(f)
600-608	Gas service revenues	2	\$1,127,903.55	\$428,619.51	\$298,174.37
610-619	Other gas revenues	2	352,055.97	301,908.97	289,948.51
733-749	Natural gas production	3	30,087.99	174,191.68	394,167.18
754-757	Other production expenses	3	1,130,748.61	498,413.21	113,000.70
758-764	Transmission expenses	3	716,806.28	535,747.90	474,007.29
765-777	Distribution expenses	3	245,086.53	221,229.83	273,057.84
779-784	Customers' accounting and collect- ing expense	3	65.04	1,249.87	2,012.67
790-809	Administrative & genl. exp.	3	256,556.49	293,068.71	784,505.98
503-506	Depreciation & depletion	1	514,562.49	229,989.95	33,032.42
507	Taxes	1	965,015.32	143,734.00	89,600.19
510-513	Exploration & develop. costs	2	117,721.71	59,383.13	45,164.35
	Nonrecurring expenses	1	45,285.56	51,120.43	69,256.00
520-527	Other income	1	18,777.14	3,882.62	2,741.21
530-538	Income deductions	1	730,814.60	280,605.58	284,492.41
	Net adjustments to income accts		861,264.20	300,924.98	744,354.92
	Balance sheet accounts				
108-4	Gas plant held for future use				22,096.80
126-2	Receivables from assoc. cos.		400,514.39	212,620.57	316,466.31
132	Prepayments				14,540.00
146	Other deferred debits		1,648.91	53,683.57	543,245.80
228	Taxes accrued		11,685.80	30,863.62	2,441.39
242	Other deferred credits				5,407.00
250-1	Reserve for depreciation of gas plant		424,122.04	68,202.30	101,208.28
250-2	Reserve for depletion of producing natural gas lands and land rights		40,703.86	31,477.84	96,772.27
250-3	Reserve for abandoned leases		832.15	2,595.33	
271	Surplus as of Jan. 1, 1937		66,194.77		
271	Surplus as of Jan. 1, 1938			25,990.67	
271	Surplus as of Jan. 1, 1939				23,148.00
	Net adjustments to balance sheet accounts		861,264.20	300,924.98	744,354.92

Italic figures denote decrease.





## Operating revenues reclassified for the years 1937 and 1938.

Account No.	Account	1937			1938	
		Per books reclassified	Adjustments		As adjusted	Per books reclassified
			Dr.	Cr.		
(a)	(b)	(c)	(d)	(e)	(f)	(g)
	<i>Gas service revenues</i>					
600	Residential sales	\$1,782,135.67	\$20,825.01		\$1,761,310.66	\$1,684,169.76
602.1	Commercial sales					
602.2	Industrial sales	1,586,552.14	520.58		1,586,031.56	1,008,696.55
603	Public street and highway lighting	469.80	6.84		462.96	452.35
604	Other sales to public authorities	8,207.16	16.85		8,240.31	7,815.55
605.1	Sales to affiliated utilities	14,223,216.61	165,180.39		14,118,036.22	12,340,612.00
605.2	Sales to nonaffiliated utilities	2,627,630.27	920,095.47		1,703,524.80	1,775,780.82
608	Other sales	142,177.54	81,258.41		60,919.13	124,300.30
	Total gas service revenues	30,306,473.19	1,127,903.55		19,238,569.64	16,941,830.32
	<i>Other gas revenues</i>					
610	Rent from gas property	28,455.91			28,455.91	26,326.66
612	Customers' forfeited discounts and penalties			\$21,559.35	21,559.35	
617.1	Revenue from processing natural gas—Cond gas	82,076.76	82,076.76			58,593.34
617.2	Revenue from processing natural gas—butane gas	23,559.07	23,559.07			16,980.54
618	Revenue from incidental oil sales	6,051.48			6,051.48	2,836.06
619.1	Warehouse sales	11,011.26			11,011.26	6,887.76
619.2	Unclaimed security deposits	120.51			120.51	83.31
619.3	Management fees and expenses	248,768.17	249,382.25		7,985.92	229,434.42
619.4	Unclaimed checks	438.90			438.90	372.31
619.5	Shop labor—field	2,256.30			2,256.30	1,831.06
619.6	Gas sales contract adjustments	27,597.24	27,597.24			22,274.17
619.9	Other miscellaneous gas revenues	7,380.31			7,380.31	9,184.86
	Total other gas revenues	437,315.91	373,615.32	21,559.35	85,259.94	364,644.42
	Total operating revenues	30,803,789.10	1,501,518.87	21,559.35	19,323,829.58	17,306,474.74

Italic figures denote decrease.

## GAS COMPANY

showing adjustments for the years 1937, 1938, and 1939

1938			1939			
Adjustments		As adjusted	Per books	Adjustments		As adjusted
Dr.	Cr.			Dr.	Cr.	
(h)	(i)	(j)	(k)	(l)	(m)	(n)
130,531.21		\$1,693,638.55	1,500,980.56	\$35.04		\$1,500,945.52
625.84		1,008,673.71	245,939.68		\$34.78	245,974.46
			1,236,209.93		.26	1,236,210.19
		452.35	308.51			308.51
19.39		7,796.16	229.39			229.39
86,116.35		12,254,495.65	13,930,353.97	115,923.12		13,814,430.85
244,603.80		1,531,177.01	1,066,668.85	5,460.00		1,061,208.85
76,722.92		47,577.38	116,424.22	76,791.25		39,632.97
428,619.51		16,513,210.81	18,067,145.11	198,209.41	35.04	17,898,970.74
		29,326.60	23,426.64			23,426.64
	\$21,310.58	21,310.58	21,564.78			21,564.78
58,563.34			60,848.62	60,848.62		
16,990.54			25,915.65	25,915.65		
		2,836.00	6,847.58			6,847.58
		6,882.16	1,258.66			1,258.66
		83.31	25.11			25.11
225,451.50		3,982.92	195,229.92	192,415.89		2,814.03
		372.31	10.95			10.95
		1,831.06	315.81			315.81
22,274.17			10,768.35	10,768.35		
		9,184.89	12,453.79			12,453.79
323,369.55	21,310.58	62,645.45	358,643.96	289,948.51		68,695.45
751,929.06	21,310.58	16,575,856.26	18,455,789.07	488,157.92	35.04	17,967,666.19

## Operating expenses reclassified for the years 1937 and 1938

Account No.	Account	1937				1938
		Per books reclassified	Adjustments		As adjusted	Per books reclassified
			Dr.	Cr.		
(a)	(b)	(c)	(d)	(e)	(f)	(g)
	<i>Natural gas production</i>					
	Operation:					
733	Operation supervision and engineering	\$88,640.65		\$10,926.21	\$77,714.44	\$89,476.70
734	Operation labor:					
734.1	Gas well labor	176,642.98			176,642.98	167,444.20
734.2	Field line labor	88,321.52		394.62	87,926.90	83,722.09
734.3	Field meas. and reg. station labor	13,646.14		1,760.75	11,876.39	14,828.39
734.4	Other production labor	267,527.77		15,607.85	251,919.92	296,836.48
	Total operation labor	546,138.41		17,772.22	528,366.19	562,831.16
735	Operation supplies and expenses:					
735.1	Gas well supplies and expenses	12,971.05			12,971.05	13,255.64
735.2	Field line supplies and expenses	6,485.49		28.98	6,456.51	6,627.83
735.3	Field meas. and reg. station supplies and expenses	2,422.67		157.62	2,265.05	1,831.01
735.4	Other supplies and expenses	73,910.78		183.11	73,727.67	84,229.49
	Total operation supplies and exp	95,789.99		369.71	95,420.28	105,943.97
736	Purification supplies and expenses					
737	Production maps and records					
738	Miscellaneous production expenses					
	Total production operation	730,569.05		29,068.14	701,500.91	738,251.87
	Maintenance:					
739	Maintenance super. and engineering					
740	Maintenance of struct. and improve.:					
740.1	Mtce. of gas well structures					
740.2	Mtce. of field meas. & reg. sta. struct.	4,080.52			4,080.52	5,951.78
740.3	Mtce. of other prod. system struct.					

## GAS COMPANY

showing adjustments for the years 1937, 1938, and 1939

1938			1939			
Adjustments		As adjusted	Per books	Adjustments		As adjusted
Dr.	Cr.			Dr.	Cr.	
(h)	(i)	(j)	(k)	(l)	(m)	(n)
	\$12,506.75	\$76,969.95	\$91,308.65		\$11,953.66	\$79,354.99
		167,444.20	330,338.52			330,338.52
	374.07	83,348.02	115,199.83		514.71	114,685.12
	2,074.87	12,753.52	12,523.85		1,314.03	11,209.82
	18,014.49	278,821.99	114,907.29		3,608.87	111,298.42
	20,463.43	542,397.73	572,969.49		5,437.61	567,531.88
		13,255.64	130,999.56			130,999.56
	29.61	6,598.22	18,292.54		81.73	18,210.81
	100.17	1,730.84	2,881.65		157.62	2,723.43
	213.86	84,015.63	33,814.96			33,814.96
	343.64	105,600.33	185,988.11		239.35	185,748.76
			2,846.82		244.08	2,992.74
			3,467.73			3,467.73
	33,313.82	724,938.01	856,580.80		17,874.70	838,706.10
			18,267.01		126.11	18,140.90
		3,951.78	117.73			117.73
			3,487.47			3,487.47

## Operating expenses reclassified for the years 1937 and 1938

Account No.	Account	1937				1938
		Per books reclassified	Adjustments		As adjusted	Per books reclassified
			Dr.	Cr.		
(a)	(b)	(c)	(d)	(e)	(f)	(g)
	<i>Natural gas production—Con.</i>					
	Maintenance—Con.					
741	Maintenance of prod. gas well equip't	\$387,760.81			\$387,760.81	\$414,805.94
742	Maintenance of field lines and equip't					
742.1	Maintenance of field lines	171,968.04			171,968.04	161,190.40
742.2	Mtce. of field meas. & reg. sta. equip't	500.26			500.26	843.83
743	Maintenance of drilling & cleaning equip't					
744	Mtce. of other natural gas property	3,342.16			3,342.16	4,325.47
	Total production maintenance	567,651.79			567,651.79	587,126.06
	Miscellaneous:					
745	Gas well royalties	777,971.44	\$81,166.45		859,137.89	770,691.12
746	Natural gas rents	5,683.58			5,683.58	6,339.82
747.1	Residuals produce—Cr			\$979,829.94	979,829.94	
747.2	Residuals operation expenses		611,823.94		611,823.94	
747.3	Residuals maintenance expenses					
748.1	Joint expenses—Dr					
748.2	Joint expenses—Cr					
749*	Duplicate charges—Cr	1,005,037.82	345,965.68		659,072.14	928,183.85
	Total miscellaneous	221,582.80	1,038,956.07	979,829.94	162,256.67	151,692.90
	Total natural gas production	1,070,838.04	1,038,956.07	1,008,898.08	1,106,896.03	1,291,985.02
17	<i>Other production expenses</i>					
	Miscellaneous:					
754	Gas purchased:					
754.1	Gas purchased—natural gas					
754.11	Nat. gas purchased from aff. co.'s	244,016.23		121,234.87	122,781.36	227,293.17
754.12	Nat. gas purchased from others	8,621,616.15		774,048.60	7,847,567.55	7,570,340.20
754.121	Gas purchased contract adjustments					
	Total gas purchased, nat. gas	8,865,632.38		895,283.47	7,970,378.91	7,797,634.37
754.21	Other gas purchased from aff. co.'s	297,328.14		297,328.14		241,075.58

\*Italic figures denote decrease.



showing adjustments for the years 1937, 1938, and 1939—Continued

1938			1939			
Adjustments		As adjusted	Per books	Adjustments		As adjusted
Dr.	Cr.			Dr.	Cr.	
(h)	(i)	(j)	(k)	(l)	(m)	(n)
	\$436.74	\$414,369.17	\$53,974.29		\$516.37	\$53,457.92
		161,199.40	146,851.93			146,851.93
		843.83	705.69			705.69
		4,325.17	2,311.11			2,311.11
	436.74	586,689.35	225,715.23		642.48	225,072.75
\$78,937.04		849,028.16	828,851.62			828,851.62
		6,399.83	508.90			508.90
	678,035.37	678,035.37			892,706.83	892,706.83
517,592.04		517,592.04		\$607,116.83		607,116.83
289,448.33		658,755.37	471,686.78			471,686.78
885,977.61	678,035.37	56,249.34	357,674.74	607,116.83	892,706.83	72,084.74
885,977.61	711,785.93	1,367,876.70	1,439,970.77	607,116.83	911,224.01	1,135,863.59
	116,702.57	110,511.60	213,815.34		110,115.66	103,699.68
	205,777.80	7,364,562.40	7,418,215.35		11.66	7,418,203.69
			1,202.88			1,202.88
	322,480.37	7,475,074.00	7,633,233.57		110,127.32	7,523,106.25
	245,975.58					

## Operating expenses reclassified for the years 1937 and 1938

Account No.	Account	1937			1938
		Per books reclassified	Adjustments		Per books reclassified
			Dr.	Cr.	
	<i>Other production expenses—Continued.</i>				
	Miscellaneous—Continued.				
	Gas purchased—Con.				
755 •	Purchased gas expense				
755.1	Purchased gas operating labor	\$99,763.61		\$5,132.40	\$93,631.21
755.2	Purchased gas supplies and expenses	28,518.46		4,852.67	23,665.79
755.3	Mtce. of pur. gas meas. sta. struct.				21,075.85
755.4	Mtce. of pur. gas meas. sta. equip.				
755.5	Purchased gas rent				
	Total purchased gas expense	128,282.07		10,985.07	117,296.94
	Total gas purchased	9,291,272.53		1,203,596.68	8,087,675.85
	Production expenses—cost of abandon'g		\$72,848.07		72,848.07
	Total other production expenses	9,291,272.53	72,848.07	1,203,596.68	8,160,523.92
	<i>Transmission expenses</i>				
	Operation:				
758	Operation, supervision, and engineering	14,017.01		1,787.08	12,229.93
759	Transmission operations:				
759.1	Pumping and regulating expenses				
759.111	Pumping station labor	507,650.08		19,046.34	488,603.74
759.112	Measuring and reg. station labor	17,136.72			17,136.72
759.1211	Pumping sta. supplies and exp.	103,024.43		107,596.90	85,427.53
759.1212	Pumping station fuel	1,034,745.67		423,563.60	611,182.07
759.122	Meas. & reg. sta. supp. and exp.	1,131.45			1,131.45
	Total pumping and regulating exp.	1,753,688.35		550,206.84	1,203,481.51
759.2	Operation of transmission mains:				
759.21	Operation of trans. mains—labor	35,691.38		738.17	34,953.21
759.22	Operation of trans. mains—supp. & exp.	5,551.59		114.82	5,436.77
759.23	Transp. & comp. chgs.—paid others	46,610.52			46,610.52

showing adjustments for the years 1937, 1938, and 1939—Continued

1938			1939			
Adjustments		As adjusted	Per books	Adjustments		As adjusted
Dr	Cr			Dr	Cr	
	\$7,168.23	\$94,771.71	\$92,947.89		\$5,823.11	\$87,124.78
	4,933.99	19,119.86	16,627.99		32.27	16,595.72
			395.18			395.18
			2,608.90			2,908.90
			1,040.25			1,040.25
	12,124.22	113,891.57	113,620.21		5,855.38	107,764.83
	580,580.17	7,588,965.57	7,746,853.78		115,982.70	7,630,871.08
\$82,166.93		82,166.93				
82,166.93	580,580.17	7,671,132.50	7,746,853.78		115,982.70	7,630,871.08
	2,513.48	13,816.03	18,519.99		1,815.39	16,704.60
	19,280.64	470,911.89	461,254.02		20,573.83	443,680.19
		17,484.73	-16,033.75			16,033.75
	87,901.21	62,970.92	202,495.18		119,429.76	83,065.42
	365,418.41	558,490.30	708,713.26		311,006.68	397,706.58
		1,539.81	2,159.09			2,159.09
	472,560.26	1,111,088.65	1,393,655.30		451,010.27	942,645.03
	702.09	33,244.83	77,722.82		1,907.53	76,118.29
	95.09	4,502.81	7,423.49		133.53	7,289.96
		55,035.02	60,446.14			60,446.14

## Operating expenses reclassified for the years 1937 and 1938.

Ac- count No.	Account	1937				1938
		Per books reclassified	Adjustments		As adjusted	Per books reclassified
			Dr	Cr		
(a)	(b)	(c)	(d)	(e)	(f)	(g)
	Transmission expenses—Con.					
	Operation—Con.					
	Transmission operations, Con.					
	Operation of transmis-					
	sion mains—Con.					
750.24	Other transmission system expense	\$93,770.75		\$2,441.38	\$91,329.37	\$86,494.26
	Total operation of trans. mains	181,624.24		3,294.37	178,329.87	180,074.10
750.3	Transmission maps and records					
	Total transmission operations	1,949,329.60		555,288.29	1,394,041.31	1,780,052.52
	Maintenance:					
760	Maintenance supervision and eng.					
761	Maintenance of struct. and improve.					
761.1	Mtce. of pump. station struct.	107,963.53		4,897.54	103,065.99	92,145.19
761.2	Mtce. of meas. & reg. sta. struct.	247.70			247.70	63.94
761.8	Mtce. of other trans. sys. struct.	819.71			819.71	1,839.39
18 762	Maintenance of Trans- mission Lines:					
762.1	Maintenance of mains	143,342.00		2,964.62	140,377.38	96,929.87
762.2	Mtce. of pumping, reg. & misc. equipt.					
762.21	Mtce. of pumping station equipt.	210,028.07		670.01	209,358.06	194,396.49
762.22	Mtce. of meas. & reg. sta. equipt.	937.05			937.05	2,090.84
762.23	Mtce. of other trans. sys. equipt.	178.93			178.93	264.04
	Total transmis- sion mainten- ance	463,517.99		8,532.17	454,985.82	227,699.76

showing adjustments for the years 1937, 1938, and 1939—Continued

1938			1939			
Adjustments		As adjusted	Per books	Adjustments		As adjusted
Dr.	Cr.			Dr.	Cr.	
(h)	(i)	(j)	(k)	(l)	(m)	(n)
	\$7,105.84	\$79,388.42	\$21,984.61		\$2,286.83	\$19,697.78
	7,903.02	172,171.08	167,580.06		4,047.89	163,532.17
			790.90			790.90
	482,976.76	1,297,075.76	1,580,516.25		456,873.55	1,123,642.70
			5,790.39		14.56	5,775.83
	2,865.71	59,279.48	51,238.27		2,082.75	49,155.52
		63.94	38.17			38.17
		1,839.39	1,278.65			1,278.65
	2,004.70	94,925.17	52,398.82		1,083.09	51,285.73
	2,376.34	191,939.15	180,716.87		7,577.61	192,139.26
		2,060.84	659.33			659.33
		264.04	24,853.02			24,853.02
	7,246.75	350,363.01	325,943.52		10,758.01	315,185.51

## Operating expenses reclassified for the years 1937 and 1938

Account No.	Account	1937			1938	
		Per books reclassified	Adjustments		As adjusted	Per books reclassified
			Dr.	Cr.		
(a)	(b)	(c)	(d)	(e)	(f)	(g)
	<i>Transmission expenses—Con.</i>					
	Maintenance—Continued.					
	Maintenance of Trans-					
	mission Lines—Con.					
	Miscellaneous:					
763	Rents:					
763.1	Trans. and comp. of					
	gas by others					
763.2	Rents	\$1,764.89			\$1,764.89	\$1,894.34
764.1	Joint expenses—Dr					
764.2	Joint expenses—Cr			\$152,985.82	152,985.82	
	Total miscellaneous	1,764.89		152,985.82	151,220.93	1,894.34
	Total transmission					
	expenses	2,414,612.48		716,806.28	1,697,806.20	2,139,556.62
	<i>Distribution expenses</i>					
	Operation					
765	Operation supervision and					
	engineering	35,176.85		24.39	35,136.46	22,377.51
(1)	Other distribution system					
	labor	29,589.40			29,589.40	23,711.21
766	Distribution office ex-					
	penses					
766.1	Distribution maps and					
	records	16,426.54			16,426.54	17,191.14
766.2	Other distribution office					
	expenses	18,588.52			18,588.52	21,138.01
767	Operation of distribution					
	lines	22,101.31			22,101.31	22,311.54
768	Operation of meters					
768.1	Removing and resetting					
	meters	32,182.01			32,182.01	31,280.01
768.2	Miscellaneous meter ex-					
	penses	7,377.44			7,377.44	7,301.31
769	Services on customers'					
	premises	14,687.79			14,687.79	16,584.31
	Total distribution op-					
	eration	176,124.86		34.39	176,090.47	158,894.29
	Maintenance					
771	Maintenance supervision					
	and eng.					
772	Maintenance of struct					
	and improv.	2,277.02			2,277.02	2,042.90
773	Maintenance of distribu-					
	tion lines					
773.1	Maintenance of mains	54,312.52			54,312.52	55,545.17

Not provided for in the new classification.

Italic figures denote decrease.



showing adjustments for the years 1937, 1938, and 1939—Continued

1938			1939			
Adjustments		As adjusted	Per books	Adjustments		As adjusted
Dr.	Cr.			Dr.	Cr.	
(b)	(c)	(f)	(k)	(l)	(m)	(n)
		\$1,894.31	\$1,898.31			\$1,898.31
	\$15,524.48	45,524.48	1,975.26		\$6,505.73	7,780.99
	45,524.48	41,639.12	533.05		6,505.73	5,972.68
	535,747.99	1,003,808.03	1,906,992.82		474,137.29	1,432,855.53
	54.00	22,323.51	8,988.23		26.16	8,962.07
	350.22	23,390.96				
		14,191.14	2,588.17			2,588.17
		21,138.04	3,674.72			3,674.72
		22,311.54	34,897.11			34,897.11
		31,289.01	33,335.62			33,335.62
		7,201.51	6,990.85			6,990.85
		16,584.33	13,327.35		103.53	13,223.82
	464.22	158,400.07	163,802.06		129.09	163,672.36
			6,874.60		24.48	6,850.12
		2,042.96	3,540.21			3,540.21
		72,545.17	34,235.02			31,235.02

## Operating expenses reclassified for the years 1937 and 1938

Ac- count No.	Account	1937				1938
		Per books reclassified	Adjustments		As adjusted	Per books reclassified
			Dr.	Cr.		
(a)	(b)	(c)	(d)	(e)	(f)	(g)
	<i>Distribution expenses—Con.</i>					
	Maintenance—Continued.					
	Maintenance of distribu- tion lines—Continued					
773.2	Mtce. of pumping and reg. equip.	\$2,164.82			\$2,164.82	\$2,000.93
773.3	Maintenance of services	14,887.46			14,887.46	18,088.22
773.4	Maintenance of meters	29,404.91			29,404.91	28,704.05
773.5	Maintenance of house regulators					
773.6	Mtce. of other prop. on cust. prem.					
774	Maintenance of street lighting equip.					
775	Mtce. of other distribution equip.	177.10			177.10	211.88
	Total distribution main- tenance	103,223.83			103,223.83	123,592.25
19	Miscellaneous:					
776	Rents	1,279.67			1,279.67	1,625.67
777.1	Joint expenses—Dr.					
777.2	Joint expenses—Cr.					
	Total miscellaneous	1,279.67			1,279.67	1,625.67
	Direct distribution expenses transferred		\$245,121.32		245,121.32	
	Total distribution ex- penses	280,628.36	245,121.32	\$34.39	525,715.29	584,022.21
	<i>Customers' accounting and collecting expenses</i>					
779	Supervision					
780	Customers' contracts, or- ders, meter reading and collecting:					
780.1	Customers' contracts and orders					
780.2	Credit investigations and records					
780.3	Meter reading	28,128.73			28,128.73	29,202.38
780.4	Collecting					
781	Customers' billing and accounting	69,955.26		65.04	69,890.22	79,170.04
782	Miscellaneous expenses					
783	Uncollectible accounts	3,410.12			3,410.12	4,314.29
784	Rents	30.00			30.00	
	Total customers' ac- counting and collect- ing expenses	101,524.11		65.04	101,459.07	112,776.71

showing adjustments for the years 1937, 1938, and 1939—Continued.

1938			1939			
Adjustments		As adjusted	Per books	Adjustments		As adjusted
Dr.	Cr.			Dr.	Cr.	
(b)	(i)	(j)	(k)	(l)	(m)	(n)
		\$2,000.03	\$3,161.37			\$3,161.37
		18,088.22	15,576.45			15,576.45
		28,704.05	35,710.00			35,710.00
			32.70			32.70
			349.11			349.11
			6.52			6.52
		211.88	455.03			455.03
		123,592.25	96,941.91		\$24.48	96,917.43
		1,625.67	1,185.22			1,185.22
		1,625.67	1,185.22			1,185.22
\$221,634.05		221,634.05		\$233,212.01		233,212.01
221,634.05	\$404.22	505,252.04	201,929.18	233,212.01	154.17	434,987.02
			18,455.48		331.83	18,123.65
			10,336.92			10,336.92
			45.00			45.00
		20,292.38	39,475.55			39,475.55
			35,852.86		244.44	35,608.42
	1,240.87	77,929.17	39,201.07		1,009.66	38,191.41
		4,314.20	41,248.50		426.70	10,821.80
			5,588.73			5,588.73
			114.00			114.00
	1,240.87	111,535.84	160,288.11		2,012.63	158,275.48

## Operating expenses reclassified for the years 1937 and 1938.

Ac- count No.	Account	1937				1938
		Per books reclassified	Adjustments		As adjusted	Per books reclassified
			Dr.	Cr.		
(a)	(b)	(c)	(d)	(e)	(f)	(g)
	<i>Sales promotion expenses</i>					
785	Supervision					
786	Salaries and commissions					
787	Demonstration, advertising and other sales expenses					
787.1	Demonstration					
787.2	Advertising					
787.3	Miscellaneous sales ex- penses					
	Total sales promotion expenses					
	<i>Administrative and general expenses</i>					
790	Salaries of general officers and executives	\$95,249.93		\$32,188.68	\$63,061.25	\$61,720.51
791	Other general office salaries	318,493.99		106,321.51	212,172.48	341,618.81
792	Expenses of general officers and general office em- ployees					
792.1	Expenses of general officers	4,243.29			4,243.29	1,275.16
792.2	Expenses of general office employees	72,851.89		2,895.13	70,456.76	63,719.05
793	General office supplies and expenses	11,375.70		1,077.87	10,297.83	9,828.54
794	Management and supervi- sion, fees and expenses:					
795	Special services	54,928.41		19,712.39	35,216.02	77,742.88
796	Special legal services	22,419.13			22,419.13	35,788.71
797	Regulatory commission ex- penses					215.80
798	Insurance	8,523.43			8,523.43	7,828.37
799	Injuries and damages	1,672.80			1,672.80	1,218.15
800	Employees' welfare exp. and pensions					
800.1	Employees' welfare ex- penses	381,279.46		24,873.22	356,408.24	334,804.12
800.2	Pensions					
801	Miscellaneous general ex- penses	18,258.28		411.66	17,846.62	15,931.84
802	Maintenance of general property					
802.1	Mtce. of struct. and im- prove	623.45			623.45	170.21
802.2	Mtce. of office furn. and equip	1,271.14			1,271.14	1,304.18
802.3	Mtce. of communication equipment	84,390.53		8,479.09	75,911.44	81,741.90

Italic figures denote decrease.

showing adjustments for the years 1937, 1938, and 1939—Continued

1938			1939			
Adjustments		As adjusted	Per books	Adjustments		As adjusted
Dr.	Cr.			Dr.	Cr.	
(h)	(i)	(j)	(k)	(l)	(m)	(n)
			\$5,701.87 1.84			\$5,701.83 1.84
			175.50 12.58			175.50 12.58
			5,891.75			5,891.75
	\$20,565.85	\$65,245.06	64,929.97		\$20,022.51	44,907.46
	117,410.18	224,268.63	200,609.25		95,348.90	265,209.45
	13.80	4,396.36	2,925.88			2,925.88
	3,992.48	50,717.97	37,198.14		5,055.40	31,202.74
	1,336.16	8,492.48	33,143.95		2,957.12	30,186.83
	45,887.17	31,855.71	9,554.01		2,732.72	6,821.29
	6,933.01	28,855.73	12,598.21	\$4,383.16		16,891.67
		215.80	215,071.72		315,096.86	4.86
		7,858.37	7,145.67			7,145.67
		1,218.15	1,638.77			1,938.71
	16,570.92	318,323.26	276,954.62		26,027.43	250,927.19
			135,767.28		16,318.12	119,449.16
	629.79	15,302.05	317,884.50		245,199.35	772,681.77
		170.21	49.75			49.75
	24.61	1,279.57	1,941.91			1,941.91
	4,696.12	77,045.24	37,556.52		848.70	36,707.82

## Operating expenses reclassified for the years 1937 and 1938

Account No.	Account	1937			1938
		Per books reclassified	Adjustments		Per book reclassified
			Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)
	<i>Administrative and general expenses—Continued</i>				
	Maintenance of general property—Continued.				
802.4	Misce. of miscellaneous property				
803	Rents	\$49,714.77		\$49,714.77	\$53,184.17
804	Commissions paid under agency sales contract				
805	Franchise requirements	11,184.17		18,184.17	10,566.30
806	Duplicate misc. charges—Cr.				
807	Adminis. & genl. expenses transf.—Cr.				
808	Joint expenses—Dr.				
809	Joint expenses—Cr.				
902	Stores expenses—Clearing	13,643.13			\$13,643.13
903.1	Transportation expenses—Clearing	21,232.19			21,232.19
					20,569.25
	Total adminis. & genl. expenses	1,170,355.69		256,356.49	913,999.20
					1,179,997.01
	Total operating expenses	14,335,231.21	\$1,356,925.46	3,185,756.96	12,506,399.71
					13,079,183.31

Italic figures denote decreased.



showing adjustments for the years 1937, 1938, and 1939—Continued

1938			1939			
Adjustments		As adjusted	Per books	Adjustments		As adjusted
Dr.	Cr.			Dr.	Cr.	
(h)	(i)	(j)	(k)	(l)	(m)	(n)
	\$53,454.17		\$47,531.06		\$47,531.06	
	10,565.30		11,571.29		11,571.29	
			79,438.66			\$79,438.66
	801.61	\$26,522.56				
	4,247.64	16,321.61				
	293,068.71	886,828.30	1,593,813.98	\$4,383.46	789,289.44	808,908.00
\$1,189,778.59	2,122,827.89	12,146,434.01	13,055,740.39	844,712.30	2,292,800.24	11,607,652.45

**HOPE NATURAL GAS COMPANY**  
*Gas Service Revenues—Per Books and as Adjusted 1939*

Acct. No.	Account	No. of accounts Dec. 31, 1939	Volume (cf)	Average rate per 100 ft	Amount per books	Examiners' reclassifications and adjustments		As adjusted
						Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
000	Residential sales	39,179	3,961,037	\$0.3761	\$1,540,980.56	\$35.04		\$1,500,945.52
002.1	Commercial sales	3,559	653,024	.3767	245,939.68		\$34.78	245,974.46
002.2	Industrial sales	194	4,825,474	.2562	1,236,209.93		.26	1,236,210.19
003	Public street and highway lighting	3	794	.3886	308.51			308.51
004	Sales to other public authorities	2	778	.3334	259.39			259.39
005.1	Sales to other gas utilities (affiliated):							
	The East Ohio Gas Company:							
	Regular gas	1	324,638,195	.3850	9,485,705.11			9,485,705.11
	Special industrial gas		29,269,477	.3100	2,873,794.79			2,873,794.79
	The Peoples Natural Gas Company	1	3,864,104	.3850	1,487,680.07	115,923.12		1,371,756.95
	The River Gas Company	1	237,640	.3500	83,174.00			83,174.00
	Total sales to other gas utilities (affiliated)	3	38,009,416		13,930,353.97	115,923.12		13,814,430.85
005.2	Sales to other gas utilities (nonaffiliated):							
	Fayette County Gas Company	1	840,308	.3150	264,795.41			264,795.41
	The Manufacturers Light & Heat Company	1	2,500,755	.3150	787,737.85			787,737.85
	The Northwestern Ohio Natural Gas Co.	1	18,200	.3000	5,460.00	5,460.00		
	Other:	3	53,658		8,745.59			8,745.59
	Total sales to other gas utilities (nonaffiliated)	4	3,412,411		1,066,998.85	5,460.00		1,061,538.85

Other sales:									
Drillers and pumpers	112	340,922	2874	3,07,971.03	72,387.58		25,583.47		
Hope Construction and Refining Company									
Gasoline plants	1	14,679	3000	4,403.67	4,403.67				
Exchange gas									
South Fern Oil Company	1	113,446	1242	14,049.50	72,387.58	40	27,387.58		
Total other sales	114	469,047		116,424.22	149,178.83		14,049.50		
Total gas service revenues	43,000	51,301,981	3523	18,097,145.11	270,590.99		39,632.97		
							17,896,970.74		

<sup>1</sup> Volume on contract basis.

<sup>2</sup> Total volume billed to The East Ohio Gas Company was 33,907,672 mcf. According to a study of volumes by the Bureau of Engineering, the actual metered deliveries were 33,253,409 mcf. This difference is due to certain peculiarities in the billing method as provided in the sales contract. The billing is based on metered customers consumption rather than on the actual metered deliveries by Hope Natural Gas Company.

<sup>3</sup> No examiners' reclassification entry was made for this transfer of Hope Construction and Refining Company Exchange Gas from the book classification of "Drillers and Pumpers" to a separate account to segregate for the purpose of this schedule. It represents the exchange of 260,229 mcf of gas.

[Pages 22 to 44 omitted.]

24 EXHIBIT NO. 67-A.—COMPARATIVE INCOME STATEMENTS FOR THE YEARS 1937, 1938, AND 1939, VOLUME II, F. P. C. WITNESSES NICHOLS AND REINHARD

[Pages 1 to 23 omitted]

EXAMINERS' ADJUSTING ENTRIES

ENTRY NO. 200

	Dr.	Cr.
Gas service revenues:		
600 Residential and commercial sales, 1937	\$30,825.01	
602.1 Residential and commercial sales, 1938	20,331.21	
602.2 Industrial sales, 1937	520.58	
Industrial sales, 1938	625.84	
603 Public street and highway lighting, 1937	6.84	
604 Other sales to public authorities, 1937	16.85	
Other sales to public authorities, 1938	19.39	
608 Other sales, 1937	190.07	
Other sales, 1938	134.14	
Other gas revenues:		
612 Customers' forfeited discounts and penalties, 1937		\$21,539.33
612 Customers' forfeited discounts and penalties, 1938		21,310.58
To transfer from gas service revenues to other gas revenues, the amount of customers' forfeited discounts and penalties as determined from an analysis of gas sales for the years 1937 and 1938.		

ENTRY NO. 201

603.2 Sales to other gas utilities (non-aff.), 1937	\$920,095.47	
Sales to other gas utilities (non-aff.), 1938	244,603.80	
754.12 Gas purchased from others, 1937		\$774,048.90
Gas purchased from others, 1938		205,777.86
764.2 Joint expenses—Cr., 1937		146,046.87
Joint expenses—Cr., 1938		38,826.00
To reduce revenues and expenses during the years 1937 and 1938 by the amounts representing gas taken from one subsidiary of Columbia Gas and Electric Corporation (United Fuel Gas Co.) and delivered to another of its subsidiaries (The Manufacturers Light & Heat Co.) at a different location. These transactions are recorded on the books as purchases of gas at one price per Mcf and sales at a price of 5¢ per Mcf in excess of that at which purchased. This differential is represented as a charge for transporting the gas.		
For the purpose of this report, the purchases and sales have been reduced by the amount of these transactions and the amount represented by 5¢ per Mcf is credited to Joint Expenses—Cr. to offset the costs of handling this gas.		

## ENTRY NO. 201—Continued

25. Following is a summary of the purchases and sales as recorded:

Year	Total Mcf.	Recorded sales	Recorded purchases	Differ- ence
1937	2,920,938	\$920,065.47	\$774,048.60	\$146,046.87
1938	776,520	244,603.80	203,777.80	38,826.00

The amounts affecting accounts 605.2 and 754.12 are included as an adjustment in Exhibit 37, pages 20, 23, 27 and 30, column <sup>W</sup>20

## ENTRY NO. 202

605.1	Sales to other gas utilities (affiliated) 1937	\$105,180.39	
	Sales to other gas utilities (affiliated) 1938	86,116.35	
	Sales to other gas utilities (affiliated) 1939	115,923.12	
750.1211	Pumping station supplies and expenses 1937		\$105,180.39
	Pumping station supplies and expenses 1938		86,116.35
	Pumping station supplies and expenses 1939		115,923.12

To reduce revenues and expenses by the amount paid to The Peoples Natural Gas Co. in consideration for compressing gas sold to that company, under the provisions of the sales contract dated May 8, 1937. Article Eighth of said agreement provides that: "In view of the fact that at the present time gas cannot at all times and as to the full amount required, be delivered by the Hope Company at such pressures, the Peoples Company finds it necessary to recompress all or a part of such gas at its Brave Compressing Station in Greene County, Pennsylvania. The Hope Company therefore agrees that so long as the Peoples Company finds it necessary to maintain such compressing station it will pay the Peoples Company (to be applied in reduction of the price hereinabove provided) the sum of three (3¢) cents per thousand cubic feet of gas delivered hereunder . . . ."

The above entry gives effect to the reduction of the price of the gas as provided in the part of the agreement quoted above: Volumes as follows:

Year	Sales Mcf.	Compressed by Peoples-Mcf.
1937	3,506,013	3,506,013
1938	2,870,545	2,870,545
1939	3,864,104	3,864,104

## ENTRY NO. 203

605	Other sales, 1937	\$76,782.24	
605	Other sales, 1938	74,392.18	
605	Other sales, 1939	72,387.58	
754.11	Natural gas purchased from Aff. Cos., 1937		\$69,843.29
754.11	Natural gas purchased from Aff. Cos., 1938		67,693.70
754.11	Natural gas purchased from Aff. Cos., 1939		65,881.85
764.2	Joint transmission expenses—Cr., 1937		6,938.95
764.2	Joint transmission expenses—Cr., 1938		6,698.48
764.2	Joint transmission expenses—Cr., 1939		6,505.73

## ENTRY NO. 23—Continued

	Dr.	Cr.		
To reduce revenues and expenses by the amount of gas exchanged with Hope Construction and Refining Company and recorded on the books as purchases and sales of gas.				
The gas delivered to Hope Construction and Refining Company was used by that Company in its oil production operations and returned to Hope Natural Gas Company at reduced pressures. A price differential of 2½¢ per Mcf between the recorded selling price and the repurchase price is regarded as the out-of-pocket expenses for recompressing the gas.				
For the purpose of this report the amount representing the recompressing cost is credited to Joint expenses—Cr.				
Following is a summary of the purchases and sales as recorded:				
Year	Total Mcf.	Total sales amount	Repurchase amount	Difference
1937	277,558	\$76,782.24	\$69,843.29	\$8,938.95
1938	267,939	74,392.18	67,693.70	6,698.48
1939	290,229	72,387.58	65,881.85	6,505.73
The amounts affecting accounts 608 and 754.11 are included as an adjustment in Exhibit 37, pages 20, 23, 27, 30, 31, and 37.				

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## ENTRY NO. 204

619.6 Miscellaneous gas revenues—Gas sales contract adjustments, 1938	\$22,274.17	
619.6 Miscellaneous gas revenues—Gas sales contract adjustments, 1937	27,597.24	
755.2 Gas purchased supplies and expenses, 1938		\$16,345.41
755.2 Gas purchased supplies and expenses, 1937		14,212.75
507 Taxes, 1938		5,928.76
507 Taxes, 1937		13,384.49

To transfer tax adjustments to the accounts affected during the years 1937 and 1938 by the amount of West Virginia Production and Sales taxes that were billed to others as provided in purchase and sales contracts. Such contracts provide for the sharing by vendors and vendees of taxes imposed on the production and sale of gas. In the case of taxes applicable to purchase contracts, they are herein transferred to Gas Purchase Expense account and thereby netted against certain similar taxes paid to vendors to partially reimburse such vendors for taxes imposed. In the case of taxes applicable to sales contracts, they are herein credited to the Taxes account, thereby reflecting in that account the net amount of taxes imposed on the respondent company for the production and sale of gas in West Virginia.

The adjustment for the year 1937 includes a refund from the State of West Virginia in the amount of \$376.48 for an overassessment.

These taxes are summarized as follows:

1938:

Taxes billed others on purchase contracts	\$16,345.41
Taxes billed others on sales contracts	5,928.76
Total, 1938	22,274.17

1937:

Taxes billed others on purchase contracts	14,212.75
Taxes billed others on sales contracts	13,008.01
Refund from State of West Virginia	376.48

Total, 1937 27,597.24

During the year 1939, the taxes billed others on purchase contracts were classified in the same manner as this adjustment.



## ENTRY NO. 205

	Dr.	Cr.	
Gas service revenues, 1939:			
600 Residential sales	\$35.04		
Gas service revenues:			
602 1 Commercial sales		\$34.78	
602 2 Industrial sales		.26	
To adjust the above accounts as shown by the general ledger control accounts so as to agree with the details supporting said accounts as shown in the Company's analysis of gas sales. These differences are represented by Minimum Charges and Service Charges which were apparently posted to the wrong control account. The details are as follows:			
	Details	Sales summary	Difference
Minimum charges:			
Residential sales	\$4,124.96	\$4,160.50	\$35.54
Commercial sales	1,315.94	1,280.66	35.28
Industrial sales	24.18	23.92	.26
Service charges:			
Residential sales	4,985.18	4,984.68	.50
Commercial sales	380.96	381.46	.50
	10,831.22	10,831.22	

## ENTRY NO. 206

Gas service revenues, 1939:		
605.2 Sales to other gas utilities (non-affiliated)	\$5,460.00	
242 Other deferred credits		\$5,460.00
To transfer to the latter account, the amount of gas sales to Northwestern Ohio Natural Gas Company on December 30 and 31, 1939. These sales are reflected in the income account of Reserve Gas Co. which was merged with Hope Natural Gas Co. on December 30, 1939. This entry is included as an adjustment in Company Exhibit 37, page 34, column 5.		

## ENTRY NO. 207

146 Other deferred debits, 1939	\$124.77	
734.12 Gas purchased		\$11.66
730.11 Compressor station labor		113.11
Elimination of expenses applicable to Reserve Gas Company which were incurred on December 30 and 31, 1939 after the merger of said Company with Hope Natural Gas Company. This entry is included in Exhibit 37, page 37, column 5.		

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## ENTRY NO. 208

	Dr.	Cr.
619.6 Miscellaneous gas revenues—Gas sales, 1939.....	\$10,768.35	
507 Contract adjustments taxes, 1939.....		\$10,768.35
West Virginia production and sales taxes billed others as provided in sales contracts. These taxes are recorded on the books as miscellaneous gas revenues and this adjustment transfers the credits to the account to which such taxes were charged when paid to the State of West Virginia. The sales contracts provide for reimbursement by the vendee for certain taxes imposed on the production and sale of gas.		

## ENTRY NO. 209

755.2 Gas purchased supplies and expenses, 1938.....	\$12,280.14	
755.2 Gas purchased supplies and expenses, 1937.....	10,204.73	
538 Miscellaneous income deductions, 1938.....		\$12,280.14
538 Miscellaneous income deductions, 1937.....		10,204.73
West Virginia taxes on production and sales of gas paid to others as provided in certain purchase contracts wherein it is stipulated that the imposition of such taxes will be shared alike by vendor and vendee. The amounts herein represent the respondent company's portion of taxes imposed by the State of West Virginia on certain vendors. During the year 1939, the books reflect these taxes in the manner as herein adjusted for the years 1937 and 1938.		

## ENTRY NO. 210

826 Miscellaneous nonoperating revenues, 1938.....	\$910.26	
526 Miscellaneous nonoperating revenues, 1937.....	16,463.51	
Reserve for depreciation of—		
250.1 Gas plant, 1938.....		\$910.26
250.1 Gas plant, 1937.....		1,666.52
512 Abandoned leases, 1937.....		14,833.99
To transfer from nonoperating revenues, the amounts recorded therein representing book profit on property retired, sold, or abandoned during the years 1937 and 1938. The amount credited to account 512 represents a book profit on the sale of unoperated leases.		

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## ENTRY NO. 211

619.3 Management fees and expenses, 1939.....	\$192,415.89	
619.3 Management fees and expenses, 1938.....	225,451.50	
619.3 Management fees and expenses, 1937.....	240,382.25	
733 Operation, supervision & engr., 1939.....		\$11,933.66
733 Operation, supervision & engr., 1938.....		12,306.73
733 Operation, supervision & engr., 1937.....		10,926.21
734.3 Field meas. & reg. stat. labor, 1939.....		628.83
734.3 Field meas. & reg. stat. labor, 1938.....		11,293.61
734.3 Field meas. & reg. stat. labor, 1937.....		1,023.17
734.4 Other production labor, 1939.....		3,698.87
734.4 Other production labor, 1938.....		17,517.61
734.4 Other production labor, 1937.....		15,607.83
734.4 Other supplies and expenses, 1937.....		183.11
737 Production maps and records, 1939.....		244.08
739 Maint. supervision & engr., 1939.....		126.11

## ENTRY NO. 211—Continued

	Dr.	Cr.
741 Maint. of prod. gas well equipt., 1939		\$516.37
741 Maint. of prod. gas well equipt., 1938		436.74
755.1 Purchased gas operating labor, 1939		5,823.11
755.1 Purchased gas operating labor, 1938		7,168.23
755.1 Purchased gas operating labor, 1937		6,132.40
755.2 Purchased gas supplies & expenses, 1939		32.27
755.2 Purchased gas supplies & expenses, 1938		690.72
755.2 Purchased gas supplies & expenses, 1937		844.65
758 Operation, supervision & engr., 1939		1,515.39
758 Operation, supervision & engr., 1938		2,513.48
758 Operation, supervision & engr., 1937		1,787.08
759 111 Pumping station labor, 1939		1,144.94
759.24 Other transmission system exp., 1939		2,286.63
759.24 Other transmission system exp., 1938		6,994.34
759.24 Other transmission system exp., 1937		2,441.38
760 Maintenance, supervision & engr., 1939		14.56
762.21 Maint. of pumping station equipt., 1939		1,523.75
762.21 Maint. of pumping station equipt., 1938		21.43
765 Operation, supervision & engr., 1939		26.16
765 Operation, supervision & engr., 1938		54.00
765 Operation, supervision & engr., 1937		34.39
769 Services on customers' premises, 1939		103.53
Other distribution system labor, 1938		330.22
771 Maintenance, supervision & engr., 1939		24.48
779 Supervision, 1939		331.83
780.4 Collecting, 1939		244.44
781 Customers' billing & accounting, 1939		1,009.66
781 Customers' billing & accounting, 1938		1,240.87
781 Customers' billing & accounting, 1937		65.04
782 Miscellaneous expenses, 1939		426.70
790 Salaries of general off. & exec., 1939		20,022.51
790 Salaries of general off. & exec., 1938		26,505.85
790 Salaries of general off. & exec., 1937		32,188.68
791 Other general office salaries, 1939		95,348.90
791 Other general office salaries, 1938		96,782.51
791 Other general office salaries, 1937		106,321.51
792.2 Expenses of general off. employees, 1938		118.26
793 General office supplies & expenses, 1939		2,957.12
793 General office supplies & expenses, 1938		586.85
793 General office supplies & expenses, 1937		1,077.87
795 Special services, 1938		10,925.85
795 Special services, 1937		10,818.70
800.1 Employees' welfare expenses, 1939		15,101.43
800.1 Employees' welfare expenses, 1938		16,570.92
800.1 Employees' welfare expenses, 1937		24,871.22
801 Miscellaneous general expenses, 1939		21,962.57
801 Miscellaneous general expenses, 1938		285.13
801 Miscellaneous general expenses, 1937		411.66
802.2 Maintenance of office furn. & equipt., 1938		13.61
802.3 Maintenance of communication equipt., 1938		2,848.93
803 Rents, 1939		6,572.03
803 Rents, 1938		15,137.77
803 Rents, 1937		14,941.25
902 Stores expenses—Clearing, 1938		19,075.30
903.1 Transportation expenses—Clearing, 1938		801.61
		4,122.73

## ENTRY NO. 211—Continued

	Dr.	Cr.
To adjust the above operating revenue and expense accounts in order that the actual net expense be reflected. These management fees and expenses have been charged to the following associated companies:		
Hope Construction and Refining Company.		
Reserve Gas Company.		
The Peoples Natural Gas Company.		
New York State Natural Gas Corporation.		
Keuka Construction Company.		

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## ENTRY NO. 212

146	Other deferred debits, 1939	\$543,121.12	
	Other deferred debits, 1938	53,683.57	
	Other deferred debits, 1937	1,648.91	
797	Regulatory commission expenses, 1939		\$315,066.86
801	Miscellaneous general expenses, 1939		228,054.26
734.4	Other production labor, 1938		496.88
735.4	Other production supplies and expenses, 1938		213.86
759.24	Other transmission system expenses, 1938		121.50
791	Other general office salaries, 1938		20,627.67
792.1	Expenses of general officers, 1938		13.80
792.2	Expenses of general office employees, 1938		217.74
793	General office supplies and expenses, 1938		749.31
795	Special services, 1938		28,548.29
796	Special legal services, 1938		43.55
801	Miscellaneous general expenses, 1938		344.66
802.2	Maintenance of office furniture and equipment, 1938		17.00
803	Rents, 1938		2,164.40
903.1	Transportation expenses—clearing, 1938		161.47
903.2	Clarksburg garage—suspense, 1938		23.44
538	Miscellaneous income deductions, 1937		1,648.91

To suspend the expenditures incurred during the years 1937, 1938, and 1939, that relate to the company's reclassification of property accounts, River Rate investigation and Cleveland Rate Case. They are transferred to other deferred debits pending final disposition by the Commission.\*

Year	Reference	Description	Amount
1937		Cleveland Rate case	\$1,648.91
1938	Sundry voucher	River Rate case	1,532.57
1938	Sundry voucher	Property reclassification	52,151.00
1939	M 348	River Rate case	315,066.86
1939	M 350	Property reclassification	228,054.26
	Total		598,453.60

\*This entry is included in the company's exhibit 37, pages 26, 29, 31, and 38, column 5, with minor exceptions to amounts involved.

## ENTRY NO. 213

	Dr.	Cr.
126.2 Receivables from associated companies:		
Hope Construction and Refining Company, 1939	\$117,640.58	
Hope Construction and Refining Company, 1938	127,771.12	
Hope Construction and Refining Company, 1937	138,144.22	
608 Other sales, 1939	4,403.67	
608 Other sales, 1938	2,196.60	
608 Other sales, 1937	4,286.10	
759, 1212 Pumping station—Fuel, 1939		\$122,044.25
759, 1212 Pumping station—Fuel, 1938		129,967.72
759, 1212 Pumping station—Fuel, 1937		142,430.32
To charge Hope Construction and Refining Company with the value placed on steam and gas furnished gasoline plants for extraction purposes, taking into consideration the vent gas returned to Hope Natural Gas Company and concurrently crediting the operating expense account affected. See gasoline extraction study for details of Entries No. 213 to 217, incl.		

## ENTRY NO. 214

617.1 Revenue from Processing Nat. Gas-Cont. Gas, 1939	\$60,848.62	
617.1 Revenue from Processing Nat. Gas-Cont. Gas, 1938	58,563.34	
617.1 Revenue from Processing Nat. Gas-Cont. Gas, 1937	82,076.76	
617.2 Revenue from Processing Nat. Gas-Butane Gas, 1939	25,915.65	
617.2 Revenue from Processing Nat. Gas-Butane Gas, 1938	16,900.54	
617.2 Revenue from Processing Nat. Gas-Butane Gas, 1937	23,559.07	
126.2 Receivables from associated companies:		
Hope Construction and Refining Company, 1939		\$86,764.27
Hope Construction and Refining Company, 1938		75,583.88
Hope Construction and Refining Company, 1937		105,625.83
To credit Hope Construction and Refining Company with the value per books representing royalties from one-eighth of the gross receipts from sale of gasoline and butane extracted from Hope Natural Gas Company's gas and accordingly reversing the revenue accounts affected.		

## ENTRY NO. 215

126.2 Receivables from associated companies:		
Hope Construction and Refining Company, 1939	\$892,706.83	
Hope Construction and Refining Company, 1938	678,035.37	
Hope Construction and Refining Company, 1937	979,829.94	
747.1 Residuals Produced—Credit, 1939		\$892,706.83
747.1 Residuals Produced—Credit, 1938		678,035.37
747.1 Residuals Produced—Credit, 1937		979,829.94
To record in residuals produced account the revenue from sales of gasoline and butane that were extracted from natural gas of Hope Natural Gas Company and charge Hope Construction and Refining Company as the recipient of these products.		

## ENTRY NO. 216

	Dr.	Cr.
747.2 Residuals Operating Expenses, 1939	\$568,523.17	
747.2 Residuals Operating Expenses, 1938	477,321.37	
747.2 Residuals Operating Expenses, 1937	566,156.05	
126.2 Receivables from associated companies:		
Hope Construction and Refining Company, 1939		\$568,513.17
Hope Construction and Refining Company, 1938		477,312.37
Hope Construction and Refining Company, 1937		566,156.05
To record in residuals produced operation account the expenses incident to production and sale of gasoline and butane that were incurred by Hope Construction and Refining Company:		

## ENTRY NO. 217

747.2 Residuals Operating Expenses, 1939	\$38,593.66	
747.2 Residuals Operating Expenses, 1938	40,270.67	
747.2 Residuals Operating Expenses, 1937	45,667.89	
126.2 Receivables from associated companies:		
Hope Construction and Refining Company, 1939		\$38,593.66
Hope Construction and Refining Company, 1938		40,270.67
Hope Construction and Refining Company, 1937		45,667.89
To record in residuals produced operation account the return on investment allowed Hope Construction and Refining Company based on 6% of average investment for the years 1937, 1938, and 1939.		

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## ENTRY NO. 218

538 Miscellaneous income deductions, 1939	\$147,933.49	
538 Miscellaneous income deductions, 1938	159,520.47	
538 Miscellaneous income deductions, 1937	174,172.94	
754.11 Natural gas purchased from aff. cos., 1939		\$147,933.49
754.11 Natural gas purchased from aff. cos., 1938		159,520.47
754.11 Natural gas purchased from aff. cos., 1937		174,172.94
To eliminate the balance recorded as cost of natural gas purchased from Hope Construction and Refining Company, this balance being amount remaining in account 754.11 after giving effect of the Adjustment (A) shown in the Company's Exhibit No. 37. Details as follows:		

	MCF		
	1939	1938	1937
Contract No. 456	1,098,952	1,125,862	1,300,736
Exchange gas dj.*	<i>200,229</i>	<i>267,939</i>	<i>277,658</i>
Contr. No. 456 (net)	898,723	857,923	1,023,178
Contr. No. 676	25,441	63,007	
MCF subject to adjustment	864,164	920,930	1,023,178

See footnote on page 267.

Italic figures denote decrease.



## ENTRY NO. 218—Continued

	Value			Dr.	Cr.
	1939	1938	1937		
Purchases.....	\$147,933.49	\$159,520.47	\$174,172.94		
Exchange gas.....	65,881.85	67,693.70	69,843.29		
Total per books.....	213,815.34	227,214.17	244,016.23		
Exchange gas a-lj.....	65,881.85	67,693.70	69,843.29		
Value subject to adjustment.....	147,933.49	159,520.47	174,172.94		

## ENTRY NO. 219

754.11 Natural gas purchased from aff. co's., 1939.....				\$103,699.68	
754.11 Natural gas purchased from aff. co's., 1938.....				110,511.60	
754.11 Natural gas purchased from aff. co's., 1937.....				122,781.36	
538 Miscellaneous income deductions, 1939.....					\$103,699.68
538 Miscellaneous income deductions, 1938.....					110,511.60
538 Miscellaneous income deductions, 1937.....					122,781.36
To reinstate the amount computed as cost of natural gas purchased from Hope Construction and Refining Company, based on the unit price that was recommended by the Bureau of Engineering. Details as follows:					
	1939	1938	1937		
Total MCF.....	864,164	920,930	1,023,178		
Unit price.....	.12	.12	.12		
Amount.....	\$103,699.68	\$110,511.60	\$122,781.36		

## ENTRY NO. 220

538 Miscellaneous income deductions, 1939.....		\$247,744.26	
538 Miscellaneous income deductions, 1938.....		245,975.58	
538 Miscellaneous income deductions, 1937.....		297,328.14	
759.1212 Pumping station fuel, 1939.....			\$247,744.26
754.21 Other gas purchased from aff. co's., 1938.....			245,975.58
754.21 Other gas purchased from aff. co's., 1937.....			297,328.14
To eliminate from the Operating Expenses of the Company charges made by Domestic Coke Corporation for coke oven gas used at the Hastings and Gallagher Stations. This entry is in accord with Company's Exhibit No. 37, pages 23, 40, and 37, column 5. Details as follows:			

\*NOTE.—See Examiners' Entry No. 203 adjusting this Exchange Gas transaction, by eliminating the sale of gas to Hope Construction and Refining Company and the repurchase by the Hope Natural Gas Company, which entry to this point, is in accord with Company Exhibit 37, Adjustment (A).

\*\*Incorrect amount computed or use in Exhibit 37—above entry adjusts this error.

Italic figures denote decrease.

## ENTRY NO. 220—Continued

	MCF			Dr.	Cr.
	1939	1938	1937		
Hastings Stat.....	1,077,577	989,878	1,188,495		
Gallagher Stat.....	298,780	376,653	463,328		
Total MCF.....	1,376,357	1,366,531	1,651,823		
At \$0.18.....	\$247,744.26	\$245,975.58	\$297,328.14		
Difference (**). .....	4,616.98				
Total per books.....	252,361.24	245,975.58	297,328.14		

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## ENTRY NO. 221

749 Duplicate charges—Credit, 1938.....			\$289,448.53	
749 Duplicate charges—Credit, 1937.....			345,965.68	
759.1212 Pumping station fuel, 1938.....				\$289,448.53
759.1212 Pumping station fuel, 1937.....				345,965.68
To reverse entries recording the coke oven gas used at Hastings and Gallagher stations in order to conform to the 1939 classification, this being in accord with Company's Exhibit No. 37, Adjustment pages 23, 26, 30, and 33, column 5. Details as follows:				
	1938	1937		
Hastings station.....	\$77,588.30	\$92,122.20		
Gallagher station.....	211,860.23	253,843.48		
Total.....	289,448.53	345,965.68		

## ENTRY NO. 222

538 Miscellaneous income deductions, 1939.....	\$30,959.03	
538 Miscellaneous income deductions, 1938.....	26,246.12	
538 Miscellaneous income deductions, 1937.....	27,030.40	
759.111 Pumping station—Labor, 1939.....		\$19,315.78
759.111 Pumping station—Labor, 1938.....		19,280.64
759.111 Pumping station—Labor, 1937.....		19,046.34
759.1211 Pumping station—Supplies & exp., 1939.....		3,506.64
759.1211 Pumping station—Supplies & exp., 1938.....		1,744.87
759.1211 Pumping station—Supplies & exp., 1937.....		2,416.51
761.1 Maint. of pumping stat.—Struct., 1939.....		2,082.75
761.1 Maint. of pumping stat.—Struct., 1938.....		2,865.71
761.1 Maint. of pumping stat.—Struct., 1937.....		4,897.54
762.21 Maint. of pumping stat.—Equip., 1939.....		6,053.86
762.21 Maint. of pumping stat.—Equip., 1938.....		2,354.91
762.21 Maint. of pumping stat.—Equip., 1937.....		670.01
To eliminate from operating expenses the direct costs arising from the transportation of coke oven gas to Hastings station. This entry is in accord with Company's Exhibit No. 37, pages 23, 30 and 37, column 5.		

(\*\*) Incorrect amount computed for use in Exhibit 37—above entry adjusts this error.

	Dr.	Cr.
538 Miscellaneous income deductions, 1939	\$16,454.64	
538 Miscellaneous income deductions, 1938	17,104.35	
538 Miscellaneous income deductions, 1937	18,311.29	
734.2 Field line labor, 1939		\$314.71
734.2 Field line labor, 1938		374.07
734.2 Field line labor, 1937		394.62
735.2 Field line supplies & expenses, 1939		81.73
735.2 Field line supplies & expenses, 1938		29.61
734.2 Field line supplies & expenses, 1937		28.98
734.3 Field meas. & reg. station labor, 1939		683.18
734.3 Field meas. & reg. station labor, 1938		811.26
734.3 Field meas. & reg. station labor, 1937		746.58
735.3 Field meas. & reg. station suppl. & exp., 1939		157.62
735.3 Field meas. & reg. station suppl. & exp., 1938		100.17
735.3 Field meas. & reg. station suppl. & exp., 1937		157.62
750.21 Operation of trans. mains—Labor, 1939		1,607.53
750.21 Operation of trans. mains—Labor, 1938		702.09
750.21 Operation of trans. mains—Labor, 1937		739.17
750.22 Operation of trans. mains—Supp. & exp., 1939		153.53
750.22 Operation of trans. mains—Supp. & exp., 1938		95.09
750.22 Operation of trans. mains—Supp. & exp., 1937		114.82
762.1 Maintenance of mains, 1939		1,083.09
762.1 Maintenance of mains, 1938		2,004.70
762.1 Maintenance of mains, 1937		2,964.62
802.3 Maint. of communication equip., 1939		848.70
802.3 Maint. of communication equip., 1938		1,847.19
802.3 Maint. of communication equip., 1937		1,907.06
507 Taxes, 1939		11,322.55
507 Taxes, 1938		11,140.17
507 Taxes, 1937		11,258.82

To eliminate from operating expenses additional expenses and taxes applicable to the transportation of coke oven gas not eliminated in Company Exhibit 37. These expenses were determined by first computing the ratio of property costs used for transportation of coke oven gas to the total property cost in each of the property accounts removed from the rate base, and then using the same ratio to the over-all operating expenses applicable to the operation and maintenance of said property. Details in statement attached.

**39 Statement of adjustments to operating expenses and taxes related to the original cost of property used to transport coke-oven gas from Domestic Coke Corporation that were eliminated from the rate base and omitted in Exhibit No. 37**

Property account number	Original cost of property		Ratio	Oper. exp. acc't No.	Year	Total oper. exps.	Ratio applied	Amount of adjustment
	Total	Used to trans. coke oven gas						
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
333.1	\$11,296,741.40	\$50,476.43	0.004468	734.2	1939	\$115,199.83	0.004468	\$514.71
333.1				734.2	1938	83,722.09	.004468	374.07
333.1				734.2	1937	88,321.52	.004468	394.62
333.1				735.2	1939	18,292.54	.004468	81.73
333.1				735.2	1938	6,627.83	.004468	29.61
333.1				735.2	1937	6,485.49	.004468	28.98
333.2	184,385.03	10,087.67	.054710	734.3	1939	12,523.85	.054710	685.18
333.2				734.3	1938	14,828.39	.054710	811.28
333.2				734.3	1937	13,646.44	.054710	746.58
333.2				735.3	1939	2,881.05	.054710	157.62
333.2				735.3	1938	1,831.01	.054710	100.17
333.2				735.3	1937	21,422.67	.054710	157.62
353	14,132,074.72	292,275.72	.020682	759.21	1939	77,725.82	.020682	1,607.53
353				759.21	1938	33,946.92	.020682	702.09
353				759.21	1937	35,691.38	.020682	738.17
353				759.22	1939	7,423.49	.020682	153.53
353				759.22	1938	4,597.90	.020682	95.09
353				759.22	1937	5,551.59	.020682	114.82
353				762.1	1939	52,368.82	.020682	1,083.09
353				762.1	1938	96,929.87	.020682	2,004.70
353				762.1	1937	143,343.00	.020682	2,963.62
378	248,975.74	5,626.43	.022598	802.3	1939	37,556.52	.022598	848.70
378				802.3	1938	81,741.36	.022598	1,847.19
378				802.3	1937	84,390.53	.022598	1,907.06
100.1	51,207,620.64	762,592.06	.014892	507	1939	760,310.91	.014892	11,322.55
100.1				507	1938	748,064.33	.014892	11,140.17
100.1				507	1937	736,031.50	.014892	11,258.82

## Examiners adjusting entries

## ENTRY NO. 224

	Dr.	Cr.
792 1212 Pumping station fuel, 1939	\$58,781.83	
799 Pumping station fuel, 1938	53,997.84	
799 Pumping station fuel, 1937	64,832.40	
528 Miscellaneous income deductions, 1939		\$58,781.83
528 Miscellaneous income deductions, 1938		53,997.84
528 Miscellaneous income deductions, 1937		64,832.40

To reinstate in the operating expenses of the Company, the value of coke oven gas used at Hastings Station for boiler fuel.

This coke oven gas, supplied by Domestic Coke Corporation, has a heating value of slightly over 500 B. T. U., and natural gas having a heating value of about 1100 B. T. U., it is therefore determined that 5/11 of \$.12, which price was recommended by the Bureau of Engineering, is to be used in arriving at the cost of the coke oven gas.

	1939	1938	1937
MCF	1,077,577	989,878	1,188,495
Unit price	.05455	.05455	.05455
Cost	\$58,781.83	\$53,997.84	\$64,832.40

## ENTRY NO. 225

122 Prepayments (prepaid taxes)	\$14,500.00	
228 Taxes accrued—December 31, 1929		\$14,500.00
To increase Federal capital stock tax for the period Jan. 1, 1940 to June 30, 1940 from \$13,000 (amount shown per books) to \$27,500. The latter amount represents one-half the amount of \$55,000 reported in the tax return for the fiscal year July 1, 1939 to June 30, 1940. Although this tax is not paid, the policy of the Company is to accrue the entire amount of estimated taxes for the fiscal year and at the end of the calendar year, charge one-half to operating taxes and the other half to prepaid taxes.		

		Dr.	Cr.
507 Taxes, 1939			
228 Taxes accrued, Dec. 31, 1939		\$1,045.50	
Underaccrual of the following taxes:			\$1.045
Federal unemployment:			
Paid in 1940	\$11,735.78		
Accrued per books	11,022.61		
Underaccrued		\$713.17	
Penna. net income:			
Paid in 1940	3,986.52		
Accrued per books	3,200.00		
Examiners' adj. #228	454.19		
Adjusted accrual	3,654.19		
Underaccrued		332.33	
Total underaccrual		1,045.50	

## ENTRY NO. 227

271 Earned surplus, Jan. 1, 1939		\$23,348.95	
507 Taxes, 1939			
Taxes paid in 1939 and charged to 1939 operations applicable to prior years.			\$23,348.95
<i>Kind of tax</i>	<i>Amount</i>		
Federal unemployment, 1936	\$238.39		
Federal unemployment, 1937	658.19		
Federal unemployment, 1938	747.07		
W. Va. real and personal, 1936	14.95		
W. Va. real and personal, 1937	9.21		
W. Va. real and personal, 1938	20.86		
Penna. unemployment, 1936	366.41		
Penna. unemployment, 1937	770.51		
Penna. unemployment, 1938	908.40		
W. Va. unemployment, 1936	2,376.05		
W. Va. unemployment, 1937	5,153.24		
W. Va. unemployment, 1938	5,815.34		
Federal old-age, 1937	1,749.21		
Federal old-age, 1938	1,749.20		
Penna. net income, 1937	382.98		
Penna. net income, 1938	12.96		
Penna. foreign corporation, 1937	2,022.83		
Penna. foreign corporation, 1938	32.05		
W. Va. gross sales, 1938	4.89		
Federal capital stock, 1938	332.00		
Total	23,348.95		

Italic figures denote decrease



## ENTRY NO. 28

	Dr.	Cr.
307 Taxes, 1939.....	\$15,518.44	
228 Taxes accrued, Dec. 31, 1939.....		\$15,518.44
Underaccrual of the following taxes for the year 1939, paid in 1940:		
<i>Kind of tax</i> ..... <i>Amount</i>		
W. Va. sales tax.....	\$564.25	
Federal capital stock tax.....	14,500.00	
Penna. income tax.....	454.19	
Total.....	15,518.44	

## ENTRY NO. 29

228 Taxes accrued, Dec. 31, 1939.....	\$33,495.33	
307 Taxes, 1939.....		\$33,495.33
Overaccrual of the following taxes for the year 1939, paid in 1940:		
<i>Kind of tax</i> ..... <i>Amount</i>		
Federal income tax.....	\$33,479.04	
Penna. foreign corp. franchise.....	16.29	
Total.....	33,495.33	

## ENTRY NO. 29

271 Earned surplus, Jan. 1, 1937.....	\$66,194.77		
228 Taxes accrued, Dec. 31, 1937.....		\$25,320.40	
307 Taxes, 1937.....		40,874.37	
Net underaccrual of taxes charged to operations in 1937 and subsequent years as follows:			
Kind of tax	Year	Year paid	Amount
Wetzel Co. property.....	1935	1938	\$7.08
Wetzel Co. property.....	1936	1938	7.08
Penna. net income.....	1935	1938	3,609.67
Penna. net income.....	1936	1938	7,657.00
Penna. foreign fran.....	1935	1938	5,379.72
Penna. foreign fran.....	1936	1938	5,664.05
Federal unemployment.....	1936	1939	238.39
W. Va. real & personal.....	1936	1939	14.95
Penna. unemployment.....	1936	1939	366.41
W. Va. unemployment.....	1936	1939	2,376.05
Total Cr. taxes accrued.....			25,320.40

## ENTRY NO. 230—Continued

					Dr.	Cr.
43	Kind of tax	Year	Year paid	Amount		
	Federal income	1936	1937			
	Federal capital stock	1936	1937	\$20.00		
	Federal unemployment	1936	1937	3.59		
	Penna. net income	1936	1937	171.74		
	W. Va. gross sales	1936	1937	828.46		
	W. Va. gross sales	1936	1937	20,096.87		
	W. Va. gross sales	1936	1937	14,768.32		
	W. Va. gross sales	1934	1937	6,202.99		
	W. Va. gross sales	1933	1937	1,309.38		
	W. Va. unemployment	1936	1937	1.64		
	Penna. foreign fran	1936	1937	871.70		
	Total Cr. taxes			40,874.37		
	Total			66,194.77		

## ENTRY NO. 231

228 Taxes accrued, December 31, 1937				\$37,006.20	
507 Taxes, other, 1937				679.27	
507 Taxes, Federal income, 1937					\$37,685.47
Adjustment of taxes accrued, 1937 as follows:					
Kind of tax		Year paid	Amount		
Federal income tax		1938	\$37,685.47		
Federal capital stock tax		1938	2,250.00		
Federal unemployment		1939	658.19		
Federal old age insurance		1939	1,749.21		
W. Va. general property		1939	9.21		
Penna. corp. net income		1938-39	6,222.46		
Gross sales & income, W. Va.		1938	142.82		
Penna. unemployment comp		1939	770.51		
W. Va. unemployment comp		1939	5,153.24		
Penna. foreign franchis		1938-39	1,368.35		
Total			\$37,006.20		

*Italic figures denote decrease.*

## ENTRY NO. 232

			Dr.	Cr.
271 Earned surplus, Jan. 1, 1938.....			\$25,320.40	
28 Taxes accrued, Dec. 31, 1938.....				\$2,995.80
307 Taxes, 1938.....				22,324.60
Net underaccrual of taxes charged to operations in 1938 and subsequent years as follows:				
Kind of tax	Year paid	Amount		
Weitzel Co. property tax, 1935.....	1938	\$7.08		
Weitzel Co. property tax, 1936.....	1938	7.08		
Penna. net income, 1935.....	1938	3,009.67		
Penna. net income, 1936.....	1938	7,657.00		
Penna. foreign franchise, 1935.....	1938	5,379.72		
Penna. foreign franchise, 1936.....	1938	5,064.05		
Federal unemployment, 1936.....	1939	238.39		
W. Va. real and personal, 1936.....	1939	14.95		
Penna. unemployment, 1936.....	1939	366.41		
W. Va. unemployment, 1936.....	1939	2,376.05		
Total Dr. surplus.....		\$25,320.40		

## ENTRY NO. 233

271 Earned surplus, Jan. 1, 1938.....			\$679.27	
307 Taxes, 1938.....			10,066.90	
28 Taxes accrued, Dec. 31, 1938.....				\$10,746.17
Adjustment of taxes and taxes accrued at Dec. 31, 1938. 1937 taxes adjusted in 1938 and 1939 as follows:				
Kind of tax	Year paid	Amount		
Fed. capital stock, overaccrued.....	1938	<i>\$2,250.00</i>		
Federal unemployment.....	1939	658.19		
Federal old age.....	1939	1,749.21		
W. Va. general property.....	1939	9.21		
Penna. Corp. net income, overaccr.....	1938	7,305.44		
Penna. Corp. net income.....	1939	382.98		
Gross sales and income, W. Va.....	1938	142.82		
Penna. unemployment comp.....	1939	779.51		
W. Va. unemployment comp.....	1939	133.24		
Penna. foreign fran., overaccr.....	1938	654.28		
Penna. foreign fran.....	1939	2,022.83		
Total.....		679.27		

Italic figures denote decrease.

	Dr.	Cr.
507 Taxes, Federal income 1938		
228 Taxes accrued, Dec. 31, 1938	\$7,514.67	
Underaccrual of Federal income tax for the year 1938. Charged to surplus in 1939:		\$7,514.67
Accrued	\$10,000.00	
Paid	17,514.67	
Underaccrued	7,514.67	

## ENTRY NO. 235

507 Taxes, 1938		\$9,606.98	
228 Taxes accrued, Dec. 31, 1938			\$9,606.98
Taxes applicable to the year 1938, paid in 1939 and charged to 1939 operations:			
Kind of tax	Year paid	Amount	
Penna. foreign corp. franchise	1939	\$32.06	
W. Va. gross sales	1939	1.99	
W. Va. unemployment	1939	5,815.34	
Penna. unemployment	1939	908.40	
Federal unemployment	1939	747.07	
W. Va. property, Wetzel Co.	1939	20.86	
Federal capital stock	1939	352.00	
Penna. income	1939	12.96	
Federal old age	1939	1,749.20	
Total		9,606.98	

## ENTRY NO. 236

527 Nonoperating revenue deductions, 1937		\$2,313.63	
Nonoperating revenue deductions, 1938		2,971.77	
Nonoperating revenue deductions, 1939		2,741.31	
507 Operating revenue deductions, taxes, 1937			\$2,313.63
Operating revenue deductions, taxes, 1938			2,971.77
Operating revenue deductions, taxes, 1939			2,741.31
Taxes not applicable to gas operations as shown by Company's Exhibit No. 37 as follows:			
Kind of tax	1937	1938	1939
W. Va. real and personal property	\$2,304.58	\$2,960.64	\$2,733.74
W. Va. gross income:			
Rents	8.67	9.72	7.47
Interest	.38	1.41	.10
Total	2,313.63	2,971.77	2,741.31

Italic figures denote decrease.

## ENTRY NO. 236—Continued

	Dr.	Cr.
In addition to the above, Company's Exhibit No. 37, pages 25, 32, and 39, column 3, shows the following:		
46 Federal income Taxes not applicable to gas operations. But since all Federal Income Taxes may be subject to adjustment for the purpose of this report after final determination of net income by the Federal Power Commission, these adjustments are not included herein:		
1937		\$12,504.00
1938		11,757.09

## ENTRY NO. 237

536 Miscellaneous income deductions, 1939	\$3,882.50		
Miscellaneous income deductions, 1938	1,937.08		
Miscellaneous income deductions, 1937	3,439.23		
793 Special services, 1939			
Special services, 1938		\$1,937.08	
Special services, 1937		3,439.23	
801 Miscellaneous general expenses, 1939		3,882.50	
Miscellaneous general expenses, 1938			
Miscellaneous general expenses, 1937			
To transfer from the above Administrative and General Expense accounts, certain donations made by the Company during years 1939, 1938, and 1937, as these contributions are not considered as operating cost for rate-making purposes:			
Details as follows:			
Year	Reference	Description	Amount
1937	Sundry vo	Com. chests, Y. M. C. A., etc	\$3,439.23
1938	Sundry vo	Com. chests, Y. M. C. A., etc	1,937.08
1939	Sundry vo	Com. chests, Y. M. C. A., etc	3,882.50
			9,258.81

## ENTRY NO. 238

Nonrecurring expenses, 1939	\$59,286.67	
Nonrecurring expenses, 1938	46,501.33	
Nonrecurring expenses, 1937	34,639.47	
796 Special services, 1939		\$2,732.72
Special services, 1938		3,269.35
Special services, 1937		4,000.00
796 Special legal services, 1939		4,389.46
Special legal services, 1938		6,883.46
Special legal services, 1937		
801 Employees' welfare expenses, 1939		10,026.00
Employees' welfare expenses, 1938		
Employees' welfare expenses, 1937		
800 2 Pensions, 1939		16,318.12
Pensions, 1938		
Pensions, 1937		
801 Miscellaneous general expenses, 1939		1,300.00
Miscellaneous general expenses, 1938		
Miscellaneous general expenses, 1937		
803 Rents, 1939		32,393.29
Rents, 1938		36,348.52
Rents, 1937		20,639.47

Italic figures denote decrease.

## ENTRY NO. 238—Continued

To set out from Operating Revenue Deductions certain operating expenses of the Company that are of a nonrecurring nature. The causes for these expenditures are such that they are not likely to occur as an expense in future years.

Details as follows:

Year	Ref.	Description	Amount
1937	(1) C 106	Services of W. E. Fohl, consulting engrg.	\$250.00
1937	(1) F 106	do	250.00
1937	(1) J 106	do	250.00
1937	(1) M 109	do	250.00
1937	(1) J 13	Services and expenses, E. V. Williamson	1,000.00
1937	(1) L 103	Proportion of cost of World's Fair Exh.	2,000.00
1938	(1) C 106	Services of W. E. Fohl, consulting engrg.	250.00
1938	(1) F 105	do	250.00
1938	(1) J 106	do	250.00
1938	(1) M 107	do	250.00
1938	(1) C 106	Services and expenses E. V. Williamson	91.00
1938	(1) F 102	do	600.00
1938	(1) G 108	do	208.40
1938	(1) K 106	Expenses only	32.80
1938	(1) M 107	Services and expenses	312.90
1938	(1) M 295	do	1,000.00
1938	(1) K 103	Traveling expense	24.25
1939	(1) C 106	Services of W. E. Fohl, consulting engrg.	250.00
1939	(1) F 106	do	250.00
1939	(1) J 105	do	250.65
1939	(1) M 105	do	250.00
1939	(1) A 106	Services and expenses E. V. Williamson	514.35
1939	(1) K 117	do	900.00
1939	(1) K 106	do	285.80
1939	(1) L 105	do	30.10
1939	(1) L 194	Expenses only, E. V. Williamson	1.82
1938	(2) F 85	Legal services S. A. Weiss, Penna. taxes	2,500.00
1938	(2) M 222	Legal services Tolles, Gogsett & Ginn, adjust	4,383.46
1939	(2) A 230	Legal services, Tolles, Gogsett & Ginn, reversed	4,383.46
1939	(3) K 43	Settlement to Mrs. O. S. Ankrum	10,926.00
1939	(4) M 229	Payment to Equitable Life S. of U. S., additional reserve	16,318.12
1937	(6)	Sun. vou., rent of Pittsburgh office paid Peoples N. G. Co	30,639.47
1938	(6)	Sun. vou., rent of Pittsburgh office paid Peoples N. G. Co	36,348.52
1939	(6)	Sun. vou., rent of Pittsburgh office paid Peoples N. G. Co	32,393.29
1939	(5) E 85	Proportion of cost of World's Fair Exh	800.00
1939	(5) H 230	Proportion of cost of World's Fair Exh	500.00
			140,427.47

- (1) Account 795, Special Services.  
 (2) Account 796, Special Legal Services.  
 (3) Account 800.1, Employees' Welfare Expenses.  
 (4) Account 800.2, Pensions.  
 (5) Account 801, Miscellaneous General Expenses.  
 (6) Account 803, Rents.

Italic figures denote decrease.



## ENTRY NO. 239

	Dr.	Cr.
Nonrecurring taxes, 1937.....	\$10,646.09	
Nonrecurring taxes, 1938.....	4,619.10	
Nonrecurring taxes, 1939.....	9,970.23	
87 Taxes, 1937.....		\$10,646.09
Taxes, 1938.....		4,619.10
Taxes, 1939.....		9,970.23
To set out from operating revenue deductions the amount of Pennsylvania State taxes that will not be assessed in future years by virtue of the removal of the Company offices from that State.		
Penna. State income tax:		
1937.....	\$4,577.54	
1938.....	87.04	
1939.....	3,986.52	
Penna. foreign corp. franchise tax:		
1937.....	\$6,068.55	
1938.....	4,532.06	
1939.....	5,983.71	

## ENTRY NO. 240

Distribution expenses, 1939.....	\$17,236.69	
Distribution expenses, 1938.....	15,428.28	
Distribution expenses, 1937.....	15,033.76	
702 2 Expenses of general office employees, 1939.....		\$5,665.40
Expenses of general office employees, 1938.....		2,650.38
Expenses of general office employees, 1937.....		2,395.13
795 Special services, 1939.....		1,200.60
Special services, 1938.....		1,454.46
Special services, 1937.....		11,571.29
805 Franchise requirements, 1939.....		10,565.30
Franchise requirements, 1938.....		11,184.17
Franchise requirements, 1937.....		
To segregate for the purpose of this report certain Administrative and General Expenses that are exclusively devoted to the distribution and sale of natural gas in the State of West Virginia. The above amounts appearing as franchise requirements have been treated as such in Company's Exhibit No: 37, pages 24, 31, and 38, column 7.		

## ENTRY NO. 240—Continued

				Dr.	Cr.
Details as follows:					
Year	Ref.	Description	Amount		
1937	(1) C 230	Standard Oil Co. of N. J. audit, W. Va. only	\$2,395.13		
1938	(1) D 33	do	3,656.38		
1939	(1) D 229	do	3,116.60		
1939	(1) M 229	do	2,548.80		
1937	(2)	Sun. Vou. Operating, city plant cars, W. Va.	1,454.46		
1938	(2)	do	1,206.60		
1937	(3) F 97	Gross earnings tax, Parkersburg, W. Va.	7,582.99		
1937	(3) M 216	do	3,601.18		
1938	(3) F 34	do	7,376.61		
1938	(3) M	do	3,188.69		
1939	(3) G 17	do	959.57		
1939	(3) L 102	Premium on bond furnished, Parkersburg, W. Va.	125.00		
1939	(3) M 156	Gross earnings tax, Parkersburg, W. Va.	3,386.72		
			47,698.73		
(1) Account 792.2, Expenses of General Office Employees.					
(2) Account 795, Special Services.					
(3) Account 805, Franchise Requirements.					

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## ENTRY NO. 241

Distribution expenses, taxes, 1937		\$149,531.72	
Distribution expenses, taxes, 1938		123,948.27	
Distribution expenses, taxes, 1939		133,975.32	
Operating revenue deductions:			
507 Taxes, 1937			\$149,531.72
Taxes, 1938			123,948.27
Taxes, 1939			133,975.32
To segregate taxes specifically applicable to distribution sales in West Virginia for purpose of this report. The following taxes are removed from the general account 507 and included as a direct cost of distribution sales:			
	1937	1938	1939
West Virginia gross sales tax:			
Sales of tangible material, retail	\$580.06	\$540.75	\$504.68
Unregulated gas sales	493.46	342.72	178.42
Regulated gas sales	132,435.13	106,169.04	117,732.55
Rents	25.04	34.45	29.26
Subtotal	133,533.69	107,086.96	118,444.91

## ENTRY NO: 241—Continued

	1937	1938	1939	Dr.	Cr.
Mercantile tax:					
Various cities	\$19.00	\$19.00	\$19.00		
Store license, Clarksburg	50.50				
Subtotal	69.50	19.00	19.00		
City license tax:					
Parkersburg	10.50	10.50	10.50		
Weston	13.00	13.00	13.00		
Clarksburg		10.50	10.50		
Subtotal	23.50	34.00	34.00		
City gross income and sales tax					
Weston	342.94	1,064.18	929.61		
Mannington		90.00	372.50		
Subtotal	342.94	1,154.18	1,302.11		
City Fire Protection, Sistersville	(a) 5.14	13.17	(a) 13.76		
West Virginia Public Service Commission fee (based on gross intrastate sales of gas)	(a) 15,556.95	(a) 15,630.96	(a) 14,161.54		
Total	149,531.72	123,938.27	133,975.32		

This entry is included in Company's Exhibit 37, pages 25, 32, and 39, column 7 with the exception of items indicated (a).

## ENTRY NO. 242

538 Miscellaneous income deductions, 1938	\$6,611.56	
304 Amort. of other lim. term gas invest., 1938		\$6,611.56
To remove from the provisions for depreciation and depletion, patent rights, and licenses as recorded on the books of the Company at Dec. 31, 1938. This amount covered an accumulation of expenditures for patents on gasoline, butane, and propane processes. The amount was charged off through the instigation of Price, Waterhouse & Co., details and authority contained in Company Voucher M96 (1938), for the reason that the term of such rights and licenses expired in prior years.		

## ENTRY NO. 243

Distribution expenses, depreciation, 1939	\$82,000.00	
Distribution expenses, depreciation, 1938	82,267.50	
Distribution expenses, depreciation, 1937	80,555.84	
303.1 Depreciation, 1939		82,000.00
Depreciation, 1938		82,267.50
Depreciation, 1937		80,555.84
To segregate for the purpose of this report the depreciation that applies to the distribution operating property of the Company.		

## ENTRY NO. 244

		Dr.	Cr.
745	Gas-well royalties, 1938	\$78,937.04	
	Gas-well royalties, 1937	81,166.45	
510	Delay rentals, 1938		\$78,937.04
	Delay rentals, 1937		81,166.45
<p>To transfer payments made in lieu of drilling leaseholds. Prior to the adoption of the 1939 system of accounts prescribed by the State of West Virginia, these payments were included in Account 762, Rental on Unoperated Leases. In reclassifying the years 1937 and 1938, the above amounts are eliminated from this account and added to Account 761, Gas-well royalties, thereby giving the comparable effect to the 1939 Classification of Accounts. These entries are identical with those appearing in Company's Exhibit No. 37, pages 22 and 29, column 5, and are discussed in detail in the Exploration and Development Cost Exhibit.</p>			
Details as follows:			
Year	Ref.	Description	Amount
1937	Sun. Vou	Total charges for the year	\$81,166.45
1938	do	do	78,937.04
			150,103.49

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## ENTRY NO. 245

250.1	Reserve for depreciation of gas plant, 1939	\$1,136,400.00	
	Reserve for depreciation of gas plant, 1938	1,450,537.28	
	Reserve for depreciation of gas plant, 1937	1,836,146.94	
503.1	Depreciation, 1939		\$1,118,000.00
	Depreciation, 1938		1,279,136.36
	Depreciation, 1937		1,736,996.33
503.2	Amort. & depl. of P. N. G. L. & L. R., 1939		18,400.00
	Amort. & depl. of P. N. G. L. & L. R., 1938		30,722.15
	Amort. & depl. of P. N. G. L. & L. R., 1937		58,463.39
512	Abandoned leases, 1939		
	Abandoned leases, 1938		41,678.77
	Abandoned leases, 1937		41,683.22

This adjustment is to reverse the provisions for depreciation and depletion, as recorded on the books of the company, from the above reserve account during the years 1937, 1938, and 1939, preparatory to setting up the annual depreciation and depletion expense computed by the examiners. Entries No. 245 to 248, inclusive, and Entry No. 250 are from the depreciation and depletion study.

## ENTRY NO. 245- Continued

Details of adj. provisions	1937	1938	1939
<b>Production system:</b>			
Operated acreage	\$58,465.39	\$30,722.15	\$18,400.00
Unoperated acreage	40,683.22	40,678.77	
Gas-well equipment	166,565.24	86,716.27	
Gas-well construction	132,741.57	74,045.35	
Other field investment	480,573.12	342,977.93	
Leases and easements	21,008.55	15,828.17	
<b>Total production system</b>	<b>880,037.09</b>	<b>590,968.64</b>	<b>18,400.00</b>
<b>Transmission system:</b>			
Equipment	844,900.69	731,771.43	
Leases and easements	18,825.52	16,458.98	
<b>Total transmission system</b>	<b>863,816.21</b>	<b>748,230.41</b>	
<b>General property:</b>			
Structures	7,651.68	7,742.55	
Office equipment	11,641.96	11,875.66	
Other general		9,020.02	
Telephone and telegraph lines			
<b>Total general</b>	<b>19,293.64</b>	<b>28,638.23</b>	
<b>Lump-sum depreciation provision, miscellaneous:</b>			<b>1,118,000.00</b>
Cost of abandoning	73,000.00	82,700.00	
<b>Total provisions adj</b>	<b>1,838,146.94</b>	<b>1,450,537.28</b>	<b>1,136,400.00</b>
<b>33 Provisions not adjusted:</b>			
Autos and trucks	26,191.45	21,873.94	(1)
Teaming		3,177.63	(1)
Drilling and cleaning equipment			
Distribution system equipment	80,038.65	81,737.72	81,500.00
Distribution leases and easements	517.19	529.78	500.00
Surplus property available for sale	6,631.20	6,631.20	6,631.20
Appreciation, Clarksburg Lt. & Ht. Co	4,740.72	4,740.72	4,740.72
Contracts for gas		813.44	6,399.47
Patent rights and licenses		6,611.56	
<b>Total provisions not adjusted</b>	<b>118,119.21</b>	<b>126,115.99</b>	<b>99,741.39</b>
<b>Total depreciation and depletion provisions</b>	<b>1,954,266.15</b>	<b>1,576,653.27</b>	<b>1,236,141.39</b>

<sup>1</sup> Clearing account.

<sup>2</sup> Portion of the lump-sum depreciation (\$1,200,000) applied to distribution system equipment based on provision for years 1937 and 1938.

## ENTRY NO. 245- Continued

Details of adj. provisions	1937	1938	1939
Reconciliation with book accounts:			
Acct. 503.1 Depreciation	\$1,843,745.62	\$1,486,455.43	\$1,200,000.00
Acct. 503.2 Amortization and depletion of P. N. G. L. & L. R.	58,465.39	30,822.15	18,400.00
Acct. 504 Amortization of other limited-term gas inv.		7,425.00	6,369.47
Acct. 512 Abandoned leases	40,683.22	40,678.77	
Acct. 537 Miscellaneous amort.	4,740.72	4,740.72	4,740.72
Acct. 538 Miscellaneous income deductions	6,631.20	6,631.20	6,631.20
	1,954,268.15	1,576,653.27	1,236,141.39

54	ENTRY NO. 246	Dr.	Ct.
503.1 Depreciation, 1939		\$1,214,640.95	
503.1 Depreciation, 1938		1,237,339.78	
503.1 Depreciation, 1937		1,320,753.21	
503.2 Depletion of P. N. G. L. & L. R., 1939		36,772.47	
503.2 Depletion of P. N. G. L. & L. R., 1938		31,407.84	
503.2 Depletion of P. N. G. L. & L. R., 1937		40,703.86	
250.1 Reserve for depreciation of gas plant, 1939			\$1,214,640.95
250.1 Reserve for depreciation of gas plant, 1938			1,237,339.78
250.1 Reserve for depreciation of gas plant, 1937			1,320,753.21
250.2 Reserve for depletion of producing natural-gas land and land rights, 1939			36,772.47
250.2 Reserve for depletion of producing natural-gas land and land rights, 1938			31,407.84
250.2 Reserve for depletion of producing natural-gas land and land rights, 1937			40,703.86
To set up in the comparative income statement for the years 1937, 1938, and 1939, the annual depreciation and depletion expense as computed by the F. P. C. examiners. This entry is made to conform with Journal Entry No. 7 included in the depreciation and depletion study.			



## ENTRY NO. 246—Continued

Details of depreciation and depletion expense, as adjusted:

	1937	1938	1939
<b>Production system:</b>			
Operated acreage	\$40,703.86	\$31,407.84	\$36,772.47
Field line R/W and construction cost	131,847.14	98,836.35	103,157.93
Gas-well construction	198,255.61	165,101.37	182,755.43
Cost of abandoning gas wells	75,833.49	56,169.61	69,813.58
structures	8,763.59	8,859.54	8,813.75
Field-line material, measuring, and regulating station equipment	179,949.69	180,626.84	175,624.42
Gas-well equipment	200,022.30	198,519.75	188,482.85
Subtotal	835,375.68	739,521.30	765,420.43
<b>Transmission system:</b>			
Main line R/W and construction cost	86,539.44	87,322.17	
structures	45,000.02	44,921.20	36,447.33
Mains material and measuring, and regulating station equipment	146,777.37	146,989.64	227,711.47
Compressor station equipment	208,343.20	209,167.37	196,108.42
Subtotal	486,660.03	488,400.38	460,267.22
<b>General plant:</b>			
Structures and improvements	5,534.67	5,616.61	4,822.72
Office furniture and equipment	2,361.00	9,522.86	7,304.04
Other equipment	15,055.40	16,141.99	4,052.74
Telephone and telegraph system	9,488.29	9,544.54	9,546.27
Subtotal	39,439.36	40,825.94	25,725.77
<b>Total production, transmission, and general</b>	<b>1,361,457.07</b>	<b>1,268,747.62</b>	<b>1,251,413.42</b>
<b>Depreciation expense not adjusted:</b>			
Drilling and cleaning equipment			(1)
Autos and trucks	23,191.45	21,873.94	(1)
Teaming		3,177.66	(1)
Contracts for gas		813.44	6,369.47
Total	23,191.45	25,865.01	6,369.47
<b>Total depreciation and depletion</b>	<b>1,387,648.52</b>	<b>1,294,612.63</b>	<b>1,257,782.89</b>

Clearing account

## ENTRY NO. 247

	Dr.	Cr.
Production expenses, cost of abandoning, 1938.....	\$82,166.93	
Production expenses, cost of abandoning, 1937.....	72,848.07	
250.1 Reserve for deprec. of gas plant as of 12/31/38.....		\$82,166.93
250.1 Reserve for deprec. of gas plant as of 12/31/37.....		72,848.07
To transfer from the above reserve account the actual cost of abandoning gas wells, field lines and other property during the years 1937 and 1938.		

## ENTRY NO. 248

512 Abandoned leases, 1939.....	\$23,067.31	
512 Abandoned leases, 1938.....	61,828.01	
512 Abandoned leases, 1937.....	19,824.10	
250.1 Reserve for deprec. of gas plant as of 12/31/39.....		\$23,067.31
250.1 Reserve for deprec. of gas plant as of 12/31/38.....		61,828.01
250.1 Reserve for deprec. of gas plant as of 12/31/37.....		19,824.10
To transfer from the above reserve account the recorded losses for abandoned leases during the years 1937, 1938, and 1939.		

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## ENTRY NO. 249

512 Abandoned leases, 1939.....	\$22,096.80	
100.4 Gas plant held for future use as of 12/31/39.....		\$22,096.80
To set up the adjustment to abandoned leases as developed in a separate study of exploration and development costs for the period 1902 to 1939, inclusive, that portion applicable to the year 1939. For details see Exploration and Development Cost Study.		

## ENTRY NO. 250

250.3 Reserve for abandoned leases as of 12/31/38.....	\$104,811.48	
271 Earned surplus (see detail).....		\$104,811.48
To transfer from the above reserve account the adjustment to abandoned leases (prior to Dec. 31, 1938) as developed in the Company's original cost study, for the reason that the examiner had not provided an amortization reserve for nonproductive acreage. The \$104,811.48 has been allocated to the yearly charges to Account 512 in the study of Exploration and Development Costs as follows:		
Period prior to 12/31/36.....	\$101,384.00	
Year 1938 (Credit Acct. 512).....	2,595.33	
Year 1937 (Credit Acct. 512).....	832.15	
As above.....	\$104,811.48	

[Pages 57 to 74 omitted.]

1 **EXHIBIT NO. 78.—OPERATIONS DATA FOR THE YEAR  
ENDED DECEMBER 31, 1940, F. P. C. WITNESS DUNN**

**WRITTEN STATEMENT**

This report on 1940 operations is a continuation of other accounting exhibits to December 31, 1940. The schedules and adjustments have been prepared by the same examiners of account who prepared similar adjustments in the reports for prior years. The examiners' adjustments, all being the same nature as those included and explained in other exhibits, are, therefore, given the same identifying entry numbers.

A detailed audit was not made for the year 1940 as the adjustments developed for the preceding years served as a guide to determine which accounts required examination; thus the investigation was limited accordingly.

In all matters affecting the 1940 operations the examiners have considered the following stipulation:

**STIPULATION**

It is hereby stipulated by and between Counsel for the Hope Natural Gas Company and Counsel for the Federal Power Commission that the attached statement represents the 1940 revenues and expenses per books of the Hope Natural Gas Company, exclusive of revenues and expenses per books with respect to the merged Reserve Gas Company.

The stipulated amounts are set forth in the examiners' income statement and supporting schedules. Adjustments are applied after giving effect to the stipulated amount.

2 *Changes in Plant Accounts.*

Schedule No. 7—Summary of Utility Plant Investment as at December 31, 1940, sets forth the recorded additions during 1940 in the amount of \$1,910,483.01 and the recorded retirements in the amount of \$944,949.71 applicable to Gas Plant, exclusive of Distribution Plant, resulting in a net increase of \$965,533.30.

*Changes in Depreciation and Depletion Reserves.*

Schedule No. 8, Depletion and Depreciation Expense for the Year Ended December 31, 1940, sets forth the annual expense

computed by methods and rates consistent with all other years. Depreciation expense is almost the same, in amount, as the years immediately preceding, but depletion expense increased in excess of \$230,000.00 over 1939. This is due to increased production in 1940.

The balance in the reserves applicable to gas plant in service, excluding distribution plant, shows an increase at December 31, 1940, as follows:

Balance, Dec. 31, 1939.....	\$24, 072, 167. 17
Provision for 1940.....	1, 480, 947. 16
Net charge to Reserves 1940.....	(869, 843. 37)
Balance, Dec. 31, 1940.....	24, 683, 270. 96

3 The net increase of \$611,103.79 offsets somewhat the above-mentioned net increase in plant accounts of \$965,533.30.  
*Gasoline Operations of Hope Construction and Refining Company.*

Schedules Nos. 9, 9a, 9b and 9c explain in detail examiners' adjusting entries Nos. 213, 214, 215, 216, and 217 which record the effect of Hope Construction and Refining Company's West Virginia gasoline and butane operations during the year 1940.

Schedule No. 9 is a condensed earnings statement of the West Virginia gasoline department, and is divided to show by accounts, the earnings per books, the examiners' adjustments thereto, and the earnings as adjusted. Schedule No. 9a is similar in form and content and presents the same information for the butane operations.

Schedule No. 9b lists the adjustments shown on these earnings statements and explains each adjustment.

Schedule No. 9c shows a condensed summary of investment in West Virginia gasoline and butane plant, the related reserve for depreciation, and the average net investment for the year 1940.

These four schedules present in condensed form for the year 1940, similar information shown in Exhibit No. 63 for the years 1937, 1938, and 1939. In preparing these schedules the same procedures were followed, the same earnings statements adjusting entries were made, and the same investment in plant was used as those for prior years.

The adjusted plant balances as of January 1, 1940, shown on Schedule No. 9c, are taken from balances shown in Exhibit No. 63 for December 31, 1939. The only adjustments to the 1940 plant changes recorded on the books of account were those made

to eliminate retirements of plant or parts of plant which had been previously retired by examiners' adjusting entries in Exhibit No. 63. The working capital requirement used in these schedules is that developed in Exhibit No. 63.

Pending the Commission's consideration and determination of a fair rate of return on gasoline investment, six percent has been used in this study.

Schedule No. 9d is a condensed earnings statement of the Kennedy gasoline extraction plant. This plant was formerly owned by the Reserve Gas Company and was acquired by Hope Construction and Refining Company December 31, 1938. In order to present the factual conditions as they existed in the four-year period 1937-1940, Exhibit No. 63 and this exhibit include this plant in the investment for 1939 and 1940 and its earnings in the income statement for those years. However, the investment and depreciation schedules separate the Kennedy plant from the other West Virginia plants.

This schedule is presented to show the revenues, expenses, and net earnings of this plant, since, by stipulation between counsel, the earnings of and investment in the merged Reserve Gas Company have been excluded from Hope Natural Gas Company earnings during the year 1940.

Schedule No. 9e, "Gasoline Sales by Plants," shows that the average price per gallon received from gasoline sales from West Virginia plants to Standard Oil Company was \$0.0179, producing revenues of \$64,930.90, while the average price of sales to others was \$0.0316. Had the sales to Standard met the average price of sales to others, the revenue produced would have been \$114,517.42, or an increase of \$49,586.52. The explanation made by company officers is that gasoline is sold to Standard Oil Company at dump prices due to insufficient storage facilities of Hope Construction and Refining Company.

#### *Income Statement.*

Gas operating revenues and net utility income show a marked increase in 1940. This is shown in a comparison of the adjusted income statements:

	1937	1938	1939	1940
Operating revenues.....	\$19,323,830.	\$16,575,856	\$17,967,606	\$22,830,801
Operating expenses.....	12,506,400	12,146,434	11,607,652	12,908,127
Depreciation and depletion.....	1,387,649	1,294,613	1,257,793	1,486,943
Taxes.....	1,318,110	1,001,688	1,227,674	2,034,284
Nonrecurring expenses.....	45,286	51,120	69,257	89,600
Exploration and development costs.....	501,076	612,242	500,344	407,826
Total deductions.....	15,758,530	15,106,097	14,662,709	16,934,823
Net utility income.....	3,565,310	1,469,759	3,304,957	5,894,408

Schedule No. 1 is an Income Statement for the Year 1940, showing deductions in accordance with the above-mentioned stipulation, and adjustments made thereafter. Consideration in the adjustments is given to the exclusion of income and expense items applicable to the former Reserve Gas Company.

Attention is directed to the stipulated amounts applicable to the Hope Company as shown in column (e) and As Adjusted, column (h). It will be noted that the adjusted amount of net utility income is \$949,222.01 greater than the company's books as stipulated for the year 1940. This increase is accounted for by a decrease, through examiners' adjustments, in Operating Revenue, Operating Revenue Deductions, setting out Nonrecurring Expenses and an increase in Exploration and Development Costs. The accounts contained in each group are treated individually in Schedules Numbers 1, 2, and 3, and are summarized below:

Particulars	Examiners' Adjustments Increase or (Decrease)
Operating Revenues.....	*\$603,563.19
Operating Revenue Deductions.....	1,654,867.23
Nonrecurring Expenses.....	89,659.60
Exploration and Development Costs.....	12,422.43
Increase in Net Utility Income.....	949,222.01

For the purpose of further clarifying the application of examiners' adjustments as shown in Exhibit 67 as well as those shown in this exhibit, the following table is presented. This table shows the net adjustments to Net Utility Income for the years 1937 to 1940, inclusive, and the groups of accounts concurrently affected.

\*Italic figures denote decrease.



	1937	1938	1939	1940
Net utility income (increase) .....	\$1,200,855.94	\$585,417.59	\$1,021,588.64	\$949,222.01
Other income (debit) .....	18,777.14	3,882.03	2,741.31	3,218.10
Income deductions .....	320,814.60	280,605.58	284,492.41	306,522.23
Net income transferred to surplus .....	861,294.20	300,929.98	734,354.92	639,481.68
	1,200,855.94	585,417.59	1,021,588.64	949,222.01

These amounts have a corresponding effect on the balance sheet.

The increase in Net Income Transferred to Surplus, arising from examiners' adjustments for the year 1940, amounting to \$639,481.68, is summarized in Schedule No. 1-A, which shows the various balance sheet accounts affected thereby.

#### 8 Gas Service Revenues.

The gas service revenues per books, company's stipulations and as adjusted are presented in Schedule No. 4. This schedule shows the number of customers at December 31, 1940, the volume on the sales contract basis and the average rate per MCF in addition to the dollar amounts of gas sales. The company's analysis of gas earnings was used as the basis for compilation of this statement.

The adjusted gas service revenues, showing the amount of sales in the State of West Virginia and those outside the State and their percentage relationship, are as follows:

	Gas service revenues	Sales in West Virginia	Sales outside West Virginia
Amount .....	\$22,732,430.02	\$3,435,675.16	\$19,296,754.86
Percent .....	100%	15.1%	84.9%

The sales outside the State of West Virginia were made to the following companies as shown in Schedule No. 4:

Fayette County Gas Company.

The Manufacturers Light & Heat Company.

The East Ohio Gas Company.

The Peoples Natural Gas Company.

The River Gas Company.

The last three of these companies are associated with Hope Natural Gas Company.

9 The examiners' adjustments of gas service revenues relating to Hope Construction and Refining Company and The Peoples Natural Gas Company for 1940 are in conformity with the explanation shown on page 5 of Exhibit 67 and indicated as "All years (a) (b) (c)."

*Other Gas Revenues and Other Income.*

The accounts within these groups, shown in Schedules Nos. 1 and 2, were adjusted substantially the same as in Exhibit 67, explained on pages 6 and 7 of that exhibit as "All years (a) (b) and (c)."

*Operating Revenue Deductions.*

Schedule No. 3 is a detailed statement of operating expenses, showing adjustments made thereto for the year 1940. This schedule shows the individual accounts, grouped by functional divisions. The net effect of the adjustments by divisions is summarized as follows:

Particulars:	Net adjustments—By increase or decrease
Production.....	\$213, 287. 39
Other production.....	112, 227. 25
Transmission.....	676, 362. 44
Distribution.....	251, 595. 20
Customers accounting and collection.....	1, 009. 01
Sales promotion.....	
Administrative and general.....	814, 117. 21
•Total operating expenses.....	•1, 565, 498. 10

10 Attention is directed to Schedule No. 1 which includes under the heading of Operating Revenue Deductions accounts adjusted by the examiners as follows:

Account:	Net adjustments—By increase or decrease
503. 1 Depreciation.....	\$114, 444. 73
503. 2 Amort. & depl. of P. N. G. L. & L. R. ....	38, 700. 14
504 Amort. of other L. T. G. I.....	
506 Taxes.....	242, 514. 00
	•89, 369. 13

Following examiners' adjustment No. 246 are the details supporting the revised depreciation and depletion expenses as set forth in Schedule No. 1.

Schedule No. 6 summarizes the taxes accrued or paid by the company during the year 1940. This summary shows the total

\* Italic figures denote decrease.

amount of taxes paid or accrued during the year and segregates the amounts applicable to the current year and those applicable to other years in columns (b), (c), and (d). Columns (e) and (f) set out the amounts eliminated as applicable to the former Reserve Gas Company. The resulting balances applicable to Hope Natural Gas Company are comparable to years 1937, 1938, and 1939, before adjustments. Columns (g) and (i) contain the examiners' adjustments and are shown in this manner to separate

the various adjusted taxes into certain categories, i. e., the amount of taxes chargeable to tax expense during 1940 in the ordinary course of operations as shown in column (h) and the balance as shown in column (j) after special treatment for rate making purposes by eliminating certain specific distribution taxes, nonrecurring taxes, etc. The adjustments to reflect the latter, which are included in column (i), are as follows:

Estimated amount of State taxes applicable to property devoted to the transportation of coke oven gas.

Taxes paid and accrued on West Virginia property not applicable to gas operations.

Fee paid Public Service Commission of West Virginia.

Distribution system taxes.

Taxes not applicable to gas operations.

Nonrecurring taxes.

Miscellaneous city taxes.

The taxes have been treated in the same manner as for the years 1937, 1938, and 1939, and Schedule No. 6 in this report is a continuation of Schedule No. 8, appearing in Exhibit 67.

The amounts set out as "Nonrecurring Expenses" in Schedule No. 1 are recognized as operating expenses of the Company.

They include such items as rent at Pittsburgh, Pennsylvania, proportion of World's Fair Exhibit, loss on experimental liquefying gas plant, moving expenses in connection with the transfer of the company's general office from Pittsburgh, Pennsylvania, to Clarksburg, West Virginia, and Pennsylvania Foreign Franchise and Net Income taxes. For purposes of this report these expenses have been segregated into a single caption, as expenses of this nature are not expected to occur in the immediate future.

*Exploration and Development Costs.*

This group of accounts, appearing in Schedule No. 1, is the last taken into consideration before arriving at Net Utility Income.

The only adjustment made in this group is one in the amount of \$12,422.43 charged to Account 512, Abandoned Leases. It is caused by the transfer from Account 250.1, Reserve for Depreciation of Gas Plant, and represents the losses for abandoned leases during the year 1940.

*Other Income.*

This subdivision, appearing in Schedule No. 1, contains an adjustment for taxes not applicable to natural gas operations. This is the only adjustment in this group of accounts.

13 *Income Deductions.*

The adjustments in this group of accounts are all reflected in Account 538, Miscellaneous Income Deductions. They represent the concurrent debit and credit amounts of adjustments to income and expense accounts that affect the Net Utility Income, but which have no effect on the net income transferred to surplus. Details of these adjustments are shown in Schedule No. 7.

EDWARD L. DUNN,

Edward L. Dunn,

*Examiner in Charge of Field Assignment.*

Washington, D. C., May 20, 1942.

Approved:

W. E. BAKER,

W. E. Baker,

*Chief Accountant.*

CHAS. W. SMITH,

Chas. W. Smith,

*Chief, Bureau of Accounts, Finance and Rates.*

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## Income statement showing adjustments for the year 1940

Account • No.	Account	(b)	Per books (c)	Less former reserve gas company (agreed) (d)	Hope Natural Gas Company (stipulation) (e)	F. P. C. adjustments		As adjusted
						Dr.	Cr.	
(a)						(f)	(g)	(h)
501	Gas Operating Income: Operating revenues		\$24,698,576.30	\$1,245,412.14	\$23,443,164.16	\$616,003.55	\$12,440.36	\$22,829,600.97
502	Operating revenue deductions:							
503.1	Operating expenses		14,960,758.77	488,134.94	14,501,624.93	885,630.15	2,451,128.25	12,096,126.83
503.2	Depreciation		1,438,383.94	128,967.51	1,309,416.43	114,444.73		1,423,863.16
504	Amortization and depletion of P. N. O. L. & L. R.		25,200.00	6,816.14	18,383.86	38,708.14		57,094.00
505	Amortization of other limited term G. I.		5,968.02		5,968.02			5,968.02
507	Taxes		2,464,514.26	187,716.56	2,276,797.70		242,514.00	2,034,283.70
	Total operating revenue deductions		18,923,855.99	811,635.05	18,112,220.94	1,038,775.02	2,692,642.25	16,457,333.71
	Net operating revenues		5,764,720.31	433,777.09	5,330,943.22	1,654,778.57	2,706,082.61	6,482,347.26
	Nonrecurring expenses					86,659.60		86,659.60
	Utility income		5,764,720.31	433,777.09	5,330,943.22	1,744,438.17	2,706,082.61	6,292,587.65
	II - Exploration and development costs							
510	Delay rentals		365,030.45	31,735.24	333,295.21			363,295.21
511	Nonproductive well drilling		32,152.42		32,152.42			32,152.42
512	Abandoned leases		50.00		50.00	12,422.43		12,472.43
	Total exploration and development costs		427,232.87	31,735.24	395,497.63	12,422.43		407,920.06
	Net utility income		5,337,487.44	\$62,041.85	4,935,445.59	1,756,860.60	2,706,082.61	5,984,667.60

## Income statement showing adjustments for the year 1940—Continued

Account No.	Account	Per books	Less former reserve gas company (agreed)	Hope Natural Gas Company (stipulation)	F. P. C. adjustments		As adjusted
					Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	<b>III—Other Income</b>						
520	Income from miscellaneous job. and cont. work	\$1,137.75		\$1,137.75			\$1,137.75
521	Income from nonutility operations	.79		.79			.79
522	Revenues from lease of other physical property	1,552.00		1,552.00			1,552.00
523	Dividend revenues	72.00		72.00			72.00
524	Interest revenues	313,580.82	\$20,575.00	292,705.82			292,705.82
525	Miscellaneous nonoperating revenues	1,102.47	211.50	890.97			890.97
527	Nonoperating revenue deductions	16.59		-16.59		\$3,218.10	-3,234.69
	Total other income	217,547.66	21,086.50	\$26,341.16		3,218.10	292,123.06
	Gross income	5,654,915.10	423,128.35	5,231,786.75		1,700,078.70	6,177,790.66
	<b>IV—Income deductions</b>						
535	Other interest charges	5,159.73	383.84	5,775.89			5,775.89
536	Interest charged to construction	19,677.90	79.37	19,588.03			19,588.03
537	Miscellaneous amortization	4,740.72		4,740.72			4,740.72
538	Miscellaneous income deductions	6,693.06		6,693.06		306,522.23	313,215.29
	Total income deductions	2,093.89	304.47	2,558.36		306,522.23	304,133.87
	Net income transferred to surplus	5,656,998.99	422,823.88	5,234,175.11		2,006,600.93	5,872,656.79

Italic figures denote decrease.



## HOPE NATURAL GAS COMPANY

## Summary of Examiners' Adjusting Entries for the Year 1940

Account No.	Income accounts	Schedule reference	1940*
(a)	(b)	(c)	(d)
600-608	Gas service revenues	2	\$371,802.80
610-619	Other gas revenues	2	231,760.39
733-749	Natural gas production	3	213,287.39
754-757	Other production expenses	3	112,227.25
758-764	Transmission expenses	3	676,362.44
765-777	Distribution expenses	3	251,705.20
779-784	Customers' accounting and collecting expenses	3	1,709.01
790-809	Administrative and general expenses	3	814,117.21
800-906	Depreciation and depletion	1	153,144.87
907	Taxes	1	242,614.00
910-913	Exploration and development costs	1	12,422.43
	Nonrecurring expenses	1	89,659.60
930-937	Other income	1	3,218.10
930-938	Income deductions	1	306,522.23
	Net adjustments to income accounts		639,481.68
	Balance sheet accounts		
136.2	Receivables from associated companies		237,726.76
145.4	Other work in progress—Stores expense		649.43
146	Other deferred debits		624,041.30
228	Taxes accrued		16,167.47
250.1	Reserve for depreciation of gas plant		197,828.49
250.2	Reserve for depletion of P. N. G. L. & L. R.		57,084.00
271	Surplus as of Jan. 1, 1940		17,098.98
			639,481.68

Italic figures denote deficit.

**HOPE NATURAL GAS COMPANY**  
*Operating Revenues Showing Adjustments for the Year 1940*

Account No.	Account (b)	Per books (c)	Less former reserve gas company (agreed) (d)	Hope Natural Gas Company (stipulation) (e)	F. P. C. adjustments		As adjusted (h)
					Dr. (f)	Cr. (g)	
	<b>Gas service revenues</b>						
600	Residential sales	\$1,738,415.77	\$19,661.54	\$1,738,754.25			\$1,738,754.25
602.1	Commercial sales	296,733.56	657.81	296,075.75			296,075.75
602.2	Industrial sales	1,352,823.48	37.27	1,352,796.21			1,352,796.21
603	Public street and highway lighting	225.20		225.20			225.20
604	Other sales to public authorities	209.69		209.69			209.69
605.1	Sales to affiliated utilities	18,613,252.47	1,088.15	18,612,164.32	\$292,158.36		18,320,005.96
605.2	Sales to nonaffiliated utilities	2,197,567.89	1,209,883.00	987,684.89			987,684.89
606	Other sales	129,142.53	2,818.00	126,324.53	79,644.44		46,680.09
	<b>Total gas service revenues</b>	<b>\$2,336,370.59</b>	<b>1,254,137.77</b>	<b>23,104,232.82</b>	<b>371,852.80</b>		<b>22,732,430.02</b>
	<b>Other gas revenues</b>						
610	Rent from gas property	26,308.10	2,914.56	23,393.54		\$12,440.36	35,833.90
642.1	Customers' forfeited discount and penalties	24,063.48	206.74	23,796.74			23,796.74
647.1	Revenue from processing natural gas—Cont. gas	62,435.67	7,901.51	54,534.16	54,534.16		
617.2	Revenue from processing natural gas—Butane gas	25,937.50		25,937.50	25,937.50		
618	Revenue from incidental oil sales	8,431.47	150.99	8,280.48			8,280.48
619.1	Warehouse sales	283.46		283.46			283.46
619.2	Unclaimed security deposits	41.17		41.17			41.17
619.3	Management fees and expenses	122,274.81		122,274.81	122,274.81		
619.4	Unclaimed checks	701.34		701.34			701.34
619.5	Shop labor—field	189.55		189.55			189.55
619.6	Gas sales contract adjustments	41,334.28		41,334.28			41,334.28
619.9	Other miscellaneous gas revenues	38,164.88		38,164.88			38,164.88
	<b>Total other gas revenues</b>	<b>\$350,205.71</b>	<b>11,274.37</b>	<b>338,931.34</b>	<b>244,200.75</b>	<b>12,440.36</b>	<b>107,170.95</b>
	<b>Total operating revenues</b>	<b>\$24,686,576.30</b>	<b>1,265,412.14</b>	<b>23,421,164.16</b>	<b>616,053.55</b>	<b>12,440.36</b>	<b>22,809,600.97</b>

## HOPE NATURAL GAS COMPANY

Schedule No. 3

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## Operating expenses showing adjustments for the year 1940

Account No.	Account	Pet books (c)	Less former reserve gas company (agreed) (d)	Hope Natural Gas Company (stipulation) (e)	F. P. C. adjustments		As adjusted (h)
					Dr. (f)	Cr. (g)	
(b)	Natural gas production						
	Operation:						
733	Operation supervision and engineering	\$111,613.94	\$7,603.81	\$103,410.13		\$8,813.71	\$94,594.42
734.1	Gas well operating labor	406,415.95	36,256.74	347,147.21			347,147.21
734.2	Field line operating labor	133,471.46	15,848.70	117,622.76		525.54	117,097.22
734.3	Field measuring and regulating station labor	22,125.83	107.51	22,018.32		1,769.45	20,248.87
734.4	Other production labor	80,722.18	6,877.73	73,844.45		3,010.11	70,834.34
735.1	Gas well supplies and expenses	196,820.85	32,158.84	164,662.01			164,662.01
735.2	Field line supplies and expenses	13,887.28	1,153.26	12,734.02		56.90	12,677.12
735.3	Field measuring and regulating station supplies and expenses	3,653.85	98.02	3,555.83		194.54	3,361.29
735.4	Other production supplies and expenses	18,185.88	3,194.82	14,991.06			14,991.06
736	Purification supplies and expenses						
737	Production maps and records	3,035.77	80.65	2,955.12			2,955.12
738	Miscellaneous production expenses	5,078.61		5,078.61			5,078.61
	Total production operation	994,411.60	126,392.98	868,018.62		14,372.25	853,647.27
	Maintenance:						
739	Maintenance supervision and engineering						
740.1	Maintenance of gas well structures	19,206.31	2,063.29	17,143.02			17,143.02
740.2	Maintenance of field measuring and regulating station structure	297.74		297.74			297.74
740.3	Maintenance of other production system structures	5,494.89	330.62	5,164.27			5,164.27
741	Maintenance of producing gas wells	93,000.00	9,548.94	83,451.06		189.04	83,262.02

## Operating expenses showing adjustments for the year 1940—Continued

Account No.	Account	Per books (c) <sup>a</sup>	Less former reserve gas company (accred)	Hope Natural Gas Company (stipulation)	F. P. C. adjustments		A <sup>a</sup> adjusted
					Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
	<b>Natural gas production—Continued.</b>						
	Maintenance—Continued						
742.1	Maintenance of field lines	\$158,651.31	\$11,385.79	\$147,265.52			\$147,265.52
742.2	Maintenance of field measuring and regulating station equipment	1,677.45	86.17	1,591.28			1,591.28
743	Maintenance of drilling and cleaning equipment						
744	Maintenance of other natural gas property	1,014.37	348.14	666.23			666.23
	Total production maintenance	279,342.07	23,782.95	255,559.12		\$189.04	255,370.08
	<b>Miscellaneous:</b>						
745	Gas well royalties	1,001,411.75	115,570.48	885,841.27			885,841.27
746	Natural gas rents	750.50		750.50			750.50
747.1	Residuals produced—Credit						
747.2	Residuals operating expenses					832,851.05	832,851.05
747.3	Residuals maintenance expenses				\$634,124.95		634,124.95
748.1	Joint expenses—Debit	624,653.81	41,477.43	583,176.38			
748.2	Joint expenses—Credit						
749	Duplicate production charges—Credit						682,576.58
	Total miscellaneous	378,106.44	74,063.05	304,015.39	634,124.95	832,851.05	105,269.29
	Total natural gas production	1,651,862.11	224,268.08	1,427,594.03	634,124.95	847,412.34	1,214,306.04

12	Other production expenses					
	Miscellaneous:					
754.11	Natural gas purchased from affiliated companies	208,184.47	6,098.44	202,176.03	107,032.95	95,143.08
754.12	Natural gas purchased from others	8,292,081.04	16,625.37	8,276,055.67		8,276,055.67
754.121	Gas purchased—contract adjustment	2,954.85		2,954.85		2,954.85
754.21	Other gas purchased from affiliated companies					
754.22	Other gas purchased from others					
	Total gas purchased—natural gas	8,503,820.36	22,633.81	8,481,186.55	107,032.95	8,374,153.60
755.1	Purchased gas operating labor	94,647.55	67.50	94,580.05	5,194.30	89,385.75
755.2	Purchased gas supplies and expenses	24,720.02	769.32	23,950.70		23,950.70
755.3	Maintenance of purchased gas measuring station structure	279.06		279.06		279.06
755.4	Maintenance of purchased gas measuring station equipment					
755.5	Purchased gas rent	6,004.03	20.77	5,974.26		5,974.26
756	Other expenses	10.00		10.00		10.00
757.1	Joint expenses—debit					
757.2	Joint expenses—credit					
	Total purchased gas expenses	125,640.66	806.59	124,794.07	5,194.30	119,599.77
	Production expenses—cost of abandoning					
	Total other production expenses	8,629,461.02	23,500.40	8,605,960.62	112,227.25	8,493,733.37

*Italic figures denote decrease.*

## Operating expenses showing adjustments for the year 1940—Continued

Account No.	Account	Per books	F. P. C. adjustments		As adjusted
			Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)
	Operation:				
	Transmitter expenses				
758	Operation supervision and engineering	\$16,405.97	\$16,219.01		\$16,219.01
759 111	Pumping station labor	571,781.37	528,404.84		509,262.53
759 112	Measuring and regulating station labor	29,039.90	6,000.12		22,439.78
759 1211	Pumping station supplies and expenses	423,874.03	8,829.70		119,280.19
759 1212	Pumping station fuel	942,051.46	40,998.32		556,945.91
759 122	Measuring and regulating station supplies and expenses	3,789.15	997.13		2,792.02
759 21	Operation of transmission mains—labor	95,784.56	1,799.17		92,080.76
759 22	Operation of transmission mains—supplies and expenses	10,929.78	6,622.68		4,218.02
759 23	Transportation and compensation charges paid others	57,493.75	124.84		57,369.17
759 24	Other transmission system expense	25,272.38	5,766.19		18,184.89
759 3	Transmission maps and records	644.05	127.20		416.85
	Total transmission operations	2,174,966.40	113,878.58		1,401,079.23
	Maintenance:				
760	Maintenance supervision and engineering	6,174.98	48.70		6,126.28
761 1	Maintenance of pumping station structures	99,103.22	11,659.83		82,676.15
761 2	Maintenance of measuring and regulating station structure	1,993.27			1,993.27
761 3	Maintenance of other transmission system structure	724.11	156.78		567.33
762 1	Maintenance of mains	58,838.67	5,439.57		52,294.70
762 21	Maintenance of pumping station equipment	246,021.86	27,468.82		218,553.04
762 22	Maintenance of measuring regulating station equipment	3,511.37	120.98		3,390.34
762 23	Maintenance of other transmission system equipment	7,029.39	36.36		6,993.03
	Total transmission maintenance	423,396.32	44,931.04		390,250.02
				9,215.76	



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**Italic figures denote decrease.**

## Operating expenses showing adjustments for the year 1940—Continued

Account No.	Account (b)	Pet books (c)	Less former reserve gas company (agreed) (d)	Hope Natural Gas Company (stipulation) (e)	F. P. C. adjustments		As adjusted (h)
					Dr. (f)	Cr. (g)	
(a)							
776	Miscellaneous: Rents	\$732.00		\$732.00			\$732.00
	Direct distribution expenses—transferred						
	Total distribution expenses	218,760.50	\$3,632.53	215,127.97	\$251,505.20		251,505.20
	<i>Customers' Accounting and collecting expenses</i>				251,505.20		466,633.17
779	Supervision	22,197.29	442.38	21,754.91			21,754.91
780.1	Customers' contracts and orders	9,904.66		9,904.66			9,904.66
780.2	Credit investigation and records	35.00		35.00			35.00
780.3	Meter reading	37,751.78	2,592.12	35,159.66			35,159.66
780.4	Collecting	37,231.37	823.67	36,407.70			36,407.70
781	Customers' billing and accounting	37,656.82	53.56	37,603.26		\$588.69	37,014.57
782	Miscellaneous expenses	7,025.00	534.09	6,500.91		420.32	6,080.59
783	Uncollectible accounts	8,131.37		8,131.37			8,131.37
784	Rents	331.50		331.50			331.50
	Total customers' accounting and collecting expenses	160,264.79	4,435.82	155,828.97		1,000.01	154,819.96
	<i>Sales promotion</i>						
785	Supervision						
786	Salaries and commissions	5,593.46		5,593.46			5,593.46
787.1	Demonstration						
787.2	Advertising	63.00		63.00			63.00

Total sales promotion expenses		6, 1966, 80	6, 1966, 80	6, 1966, 80	6, 1966, 80
<i>Administrative and general expenses</i>					
790	Salaries of general officers and executives	70,359.34	70,359.34	15,534.74	54,824.60
791	Other general office salaries	350,322.58	350,322.58	92,948.11	257,374.47
792.1	Expenses of general officers	4,844.26	4,844.26	1,979.00	2,864.96
792.2	Expenses of general office employees	36,086.29	29,424.19	23,531.54	4,892.65
793	General office supplies and expenses	80,142.44	8,262.10	18,134.89	59,627.65
794	Management and supervision fees and expenses	82.56	2,379.90	55,479.73	36,479.73
795	Special services	7,095.90	35,562.29	40.20	7,049.70
796	Special legal services	16,983.82			16,983.82
797	Regulatory commission expenses	919,475.35		341,978.25	17,497.10
798	Insurance	7,981.08	397.20		7,583.88
799	Injuries and damages	2,571.92			2,571.92
800.1	Employees' welfare expenses	356,492.21	20,049.21	4,081.85	332,361.17
800.2	Pensions	123,286.13	3,305.09		119,984.04
801	Miscellaneous general expenses	389,096.39	3,557.64		63,565.28
802.1	Maintenance of structure and improvements	6,023.97		322,482.97	6,023.97
802.2	Maintenance of office furniture and equipment	3,341.14			3,341.14
802.3	Maintenance of communication equipment	29,727.32			29,727.32
803	Rents	9,570.24	3,251.95		9,570.24
805	Franchise requirements	12,280.55			12,280.55
807	Administrative and general expenses transferred - Cr	141,062.78	93,975.99		25,877.08
Total administrative and general expenses		1,727,313.77	72,690.98	814,117.21	839,596.18
Total operating expenses		146,980,759.77	488,134.84	885,670.15	12,936,126.83

Table figures denote decrease.

**HOPE NATURAL GAS COMPANY**  
*Gas Service Revenues—per Books and as Adjusted, 1940*

Account No.	Account	Total sales			Less former Reserve Gas Company	Hope Natural Gas Company	Examiners' adjustments		As adjusted
		Number of accounts, Dec 31, 1940	Volume MCF	Average rate per MCF			Dr.	Cr.	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(i)	(i)	(k)
600	Residential sales	40,984	4,712,841	\$0.3731	\$1,758,415.77	\$19,661.54			\$1,738,754.23
602.1	Commercial sales	3,523	766,196	.3742	286,733.56	667.81			286,075.75
602.2	Industrial sales	196	5,332,781	.2537	1,352,823.48	27.27			1,352,796.21
603	Public street and highway lighting	3	564	.3656	225.20				225.20
604	Sales to other public authorities	2	629	.3334	209.69				209.69
605.1	Sales to other gas utilities (affiliated): The East Ohio Gas Company	1							
	Regular gas		29,468,639	.3850	11,345,428.05	1,088.15			11,344,337.90
	Special industrial gas		10,907,452	.3100	3,381,310.12				3,381,310.12
	The Peoples Natural Gas Company	1	9,738,612	.3350	3,749,365.65				3,749,365.65
	The River Gas Company	1	391,859	.3590	137,180.65			\$392,158.36	3,457,217.20
	Sales to other gas utilities (nonaffiliated):								137,180.65
605.2	Fayette County Gas Company	1	859,106	.3150	270,618.42				270,618.42
	Manufacturers Light & Heat Company	1	2,241,664	.3150	706,120.46				706,120.46
	Northwestern Ohio Natural Gas Co.	1	4,003,570	.3000	1,201,071.00				1,201,071.00
	The Ohio Fuel Gas Company	1	20,380	.3000	8,814.00				8,814.00
	Other Sales to Other Gas Utilities (nonaffiliated)	4	55,726	.1915	10,933.99				10,933.99

Other sales:		112	308,004	2816	103,638.60	2,818.00	100,820.00	\$73,644.14	27,176.46
Drillers and pumpers									
Hope Construction & Refining Company:									
Exchange gas		1	21,001	3000	6,000.30		6,000.30	\$73,644.14	
Gasoline plants		1	158,704	1229	19,503.63		19,503.63	6,000.30	
South Penn Natural Gas Company									
Total gas service revenues		44,833	69,045,770	3534	34,338,370.50	1,234,137.77	23,104,232.92	445,446.94	73,644.14
									22,732,430.02

<sup>1</sup> Volumes shown are on contract basis.

<sup>2</sup> Volumes of gas applicable to former Reserve Gas Company sales:

Class of sale:	MCF
Residential	75,618
Commercial	2,532
Industrial	106
The East Ohio Gas Company	3,109
Northwestern Ohio Natural Gas Co	4,003,570
The Ohio Fuel Gas Company	20,360
Drillers and Pumpers	13,779
Total	4,128,093

<sup>3</sup> No reclassification entry was made for this transfer of exchange gas from 1 classification to another for the purpose of this schedule. It represents the exchange of 205,444 MCF of gas.

## HOPE NATURAL GAS COMPANY

## Gas Purchased, 1940

308

Vendor	Contract number	Per books			Examiners' adjustments			As adjusted	
		MCF	Rate per MCF	Amount	MCF	Amount	Credit MCF	Amount	Rate per MCF
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(k)
Beech County Coal Corporation	1048	912,081	0.1468	\$133,873.90				912,081	0.1468
Godfrey L. Cabot, Inc.	384	6,275,933	1.4032	880,638.92				6,275,933	1.4032
Do	666	3,594,782	1.775	638,022.37				3,594,782	1.775
Do	800	323,693	2.500	80,923.25				323,693	2.500
Do	980-1019	31,623	1.200	3,794.76				31,623	1.200
Do	1084	16,636	0.700	1,164.52				16,636	0.700
Do	1107	954,579	1.350	128,868.18				954,579	1.350
Total		11,197,246	1.548	1,733,412.00				11,197,246	1.548
Columbia Carbon Company	1046-1047	64,752	1.200	7,770.24				64,752	1.200
Do	618	1,029,065	2.449	252,062.12				1,029,065	2.449
Do	657	6,505,094	1.664	1,082,700.34				6,505,094	1.664
Do	730	70,500	2.000	14,118.00				70,500	2.000
Total		7,669,531	1.769	1,356,710.70				7,669,531	1.769
Delaware Gas Company	1002	305,014	2.000	79,002.80				305,014	2.000
Domestic Coke Corporation	452	1,585,058	1.800	285,310.44				1,585,058	1.800
South Penn Natural Gas Co	587	10,953,518	2.200	2,409,773.96				10,953,518	2.200
Hamilton Gas Corporation	658-767	1,539,001	2.000	307,800.20				1,539,001	2.000
N. L. and J. H. Hogner	871	253,964	2.500	63,491.00				253,964	2.500
Pond Oil and Gas Co	819-792	844,504	1.800	152,010.72				844,504	1.800
Pure Oil Company	656	2,106,518	2.500	526,629.60				2,106,518	2.500



United Carbon Company	659-780	327,264	2000	65,452.80				327,264	2000	65,452.80
Do	1106	1,051,502	1350	141,952.78				1,051,502	1350	141,952.78
Total		1,378,766	1504	207,405.58				1,378,766	1504	207,405.58
West Virginia Gas Corp	613	1,454,061	1800	207,730.98				1,454,061	1800	207,730.98
Do	1097	2,716,691	1512	356,365.96				2,716,691	1512	356,365.96
Total		3,870,752	1457	564,096.94				3,870,752	1467	564,096.94
Hope Construction and Refining Company	198	1,440	0600	129.60						
Do	456	1,052,630	1909	200,976.78						
Do	676	5,673	2114	1,199.25						
Do	1027	716	1050	75.21						
Do	1008	34,139	1700	5,803.63						
Total		1,094,598	1902	208,184.47						
Less Reserve Gas Company Stipulation		36,265	1655	6,008.44						
Net		1,058,303	1910	202,176.03				1,058,303	1906	95,143.08
Total 32 contracts		43,764,256	1833	8,021,603.86				43,498,812	1820	7,914,660.91
All others		5,730,280	1324	758,473.65				5,730,280	1324	758,473.65
Less Reserve Gas Company Stipulation		144,292	1152	16,625.37				144,292	1152	16,625.37
Net		5,585,988	1328	741,848.28				5,585,988	1328	741,848.28
Total Gas Purchased		40,330,244	1776	8,783,542.14				40,084,800	1764	8,656,506.19
Less Adjustment on Domestic Coke Corporation		1,585,058	1800	285,310.44				1,585,058	1800	285,310.44
Gas purchased for resale		47,765,186	1775	8,478,231.70				47,499,742	1762	8,371,186.75

## HOPE NATURAL GAS COMPANY

Summary of taxes paid and accrued for year 1940, showing adjustments for taxes over or under accrued as per final settlements

Kind of tax	Paid or accrued during year				Less Reserve Gas Co. taxes	Balance	Examiners' adjustments	Total charge- able to tax expense	Other ad- justments	Adjusted taxes
	Applicable to—		Total							
	Other years									
	Current year									
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	
Federal:										
Income.....	\$1,000,000.00		\$1,000,000.00	\$71,207.16	\$928,792.84	\$16,480.00	\$912,312.84			\$912,312.84
Capital stock	55,000.00	813,015.00	68,015.00		68,015.00	12,016.00	56,000.00			56,000.00
Old-age insurance, 1939		800.28	800.28		800.28	800.28				
Old-age insurance	30,401.64		30,401.64	2,644.47	30,847.17		30,847.17			30,847.17
Unemployment comp., 1937		757.97	757.97		757.97	757.97				
Unemployment comp., 1938		788.07	788.07		788.07	788.07				
Unemployment comp	11,847.49		11,847.49	816.19	11,031.30		11,031.30			11,031.30
West Virginia:										
Unemployment comp	106,933.73		106,933.73	7,649.07	99,286.66		99,286.66			99,286.66
Property	814,546.06		814,546.06	61,882.06	752,664.00		752,664.00	\$11,164.29		738,519.53
Public service (perm. fee)	15,315.32		15,315.32	709.69	14,605.63	65.00	14,550.60			
Charter (capital stock)	2,500.00		2,500.00		2,500.00		2,500.00			
Gross sales, 1939		550.86	550.86		550.86		550.86			
Gross sales	442,000.00		442,000.00	44,907.05	397,092.95		397,092.95			
Pennsylvania:										
Unemployment comp	4,112.31		4,112.31		4,112.31		4,112.31			4,112.31
Corporate net income, 1935		361.54	361.54		361.54		361.54			
Corporate net income, 1959		786.52	786.52		786.52		786.52			
Corporate net income	2,782.13		2,782.13		2,782.13		2,782.13			2,782.13
Foreign franchise, 1939		16.89	16.89		16.89		16.89			
Foreign franchise		1,819.30	1,819.30		1,819.30		1,819.30			1,819.30

City taxes:	10.50	10.50	10.50	10.50	10.50	10.50
Parkersburg license	19.25	19.25	19.25	19.25	19.25	19.25
Clarksburg license	13.00	13.00	13.00	13.00	13.00	13.00
Weston license	422.50	422.50	422.50	422.50	422.50	422.50
Mannington sales	19.00	19.00	19.00	19.00	19.00	19.00
Mercantile - Various cities						
Total	2,496,837.13	2,513,881.06	180,845.69	74,000.75	2,240,434.66	2,081,521.39
Less—Charged to other accounts	49,368.82	49,368.82	2,126.13		47,237.69	47,237.69
Total—Charged to tax expense	2,447,470.31	17,043.95	2,464,514.26	187,716.56	2,292,196.97	2,034,283.70

Production and sales tax billed others under the terms of sales contracts.

Underaccrued.

Adj. No.

241 Distribution tax

241 Sales—Tangible material

241 Rents

236 Interest

Total

Italic figures denote decrease.

Amount
\$130,338.30
503.96
52.44
237.92
134,132.62

## HOPE NATURAL GAS COMPANY

Summary of utility plant investment as at Dec. 31, 1940, showing 1940 additions and retirements after examiner's reclassification of account 100-6, by accounts

	Investment per books at Jan. 1, 1940, as reclassified by examiner					1940			Balance per books as at 12/31/40 (as reclassified)
	Account 100-1—Utility plant in service			Acct. 100-6, utility plant in process of reclassification	Total	Retirements			
	Total	Less reserve acquisition	Balance			Additions	100-1	100-6	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Natural gas production plant:				\$23,522.05	\$23,522.05				\$23,522.05
330-1 Natural gas producing lands	\$1,611.92	\$1,640.92		1,301,824.55	1,301,824.55	\$482.17		\$23,192.25	1,270,114.47
330-2 Natural gas producing leaseholds, operated	5,298.85	60.47	\$5,148.38	523,349.97	528,498.35	3,810.26		6,080.92	526,218.69
330-4 Rights-of-way									
330-5 Other land and land rights									
331-1 Gas well structures	15.93		15.93		15.93	187.39			203.32
331-2 Field lines, and reg. station structures									
331-3 Other production system structures, other than gas wells, well construction	1,302.38	293.82	1,008.56	29,832.90	30,841.46	4,727.05	\$32.90	1,372.19	34,163.33
331-4 Producing gas wells, well construction	3,308.51		3,308.51	171,877.45	175,186.96	10,997.15	253.67	9,476.92	176,452.52
332-1 Producing gas wells, well construction	106,330.45	2,216.79	104,100.66	4,237,022.90	4,341,132.65	253,900.28	9,373.86	131,360.09	4,454,304.98
332-2 Producing gas wells, well equipment	84,929.95	6,356.61	78,563.34	7,626,941.82	7,708,528.16	169,379.34	10,075.32	222,278.59	7,642,741.59
333-1 Field lines	153,990.07	5,134.05	148,856.02	10,790,383.76	10,935,259.78	239,620.18	3,357.24	176,297.10	10,905,205.02
333-2 Field lines, and reg. station equipment									
334 Drilling and cleaning equipment	11,234.28	1,811.63	9,422.65	198,127.98	207,550.61	5,658.10	895.38		212,313.33
337 Other production equipment	89,333.78	6,129.97	83,223.81	333,652.77	416,876.58	64,522.10	31,803.79	18,661.69	430,933.20
	2,740.49	600.45	2,139.04	26,962.21	29,062.25	9,126.89			38,219.14
Total natural gas production plant	460,085.61	24,238.71	335,848.99	25,250,406.43	26,495,305.33	702,017.91	65,712.35	508,726.75	26,813,362.24



## HOPE NATURAL GAS COMPANY—Continued

Summary of utility plant investment as at Dec. 31, 1940, showing 1940 additions and retirements after examiner's reclassification of account 100-6, by accounts—Continued

	Investment per books at Jan. 1, 1940, as reclassified by examiner					1940		Balance per books as 12/31/40 (as reclassified)	
	Account 100-1—Utility plant in service				Total	Additions	Retirements		
	Total	Less reserve acquisition	Balance	Acct. 100-6 utility plant in process of reclassification			100-4		100-6
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	
100-4 Unoperated leaseholds	\$21,933.69	\$22.34	\$21,910.75	\$462,526.90	\$464,437.65	\$12,704.69		\$13,751.08	
	1,347,031.62	86,353.77	1,260,677.85	55,101,635.39	56,362,313.24	2,229,631.12	71,970.33	941,533.30	
Reserve Gas Co. acquisition			86,353.77		86,353.77				
100-1 Utility plant in service (classified)				7,335,767.68	7,335,767.68			283,300.23	
100-6 Utility plant in process of reclassification	1,347,031.62		1,347,031.62	62,437,403.07	63,784,434.69	2,229,631.12	71,970.33	64,727,262.95	
Total gas plant				(1) 341,281.68	341,281.68			341,281.68	
110 Other physical property—Coal property				(2) 23,915.61	23,915.61			23,915.61	
146 Other deferred debits—Contracts for gas			1,347,031.62	62,402,000.36	64,149,631.98	2,229,631.12	71,970.33	65,092,450.24	
				(3) 6,267.94	6,267.94			196.30	
271 Earnings surplus			1,347,031.62	62,408,268.30	64,155,839.92	2,229,631.12	71,970.33	65,098,471.89	



Summary:		Totals - Exclusive of reserve acquisition		Reserve acquisition		Grand totals	
		1,200,677.85	55,473,040.62	56,733,718.47	2,239,631.12	(4) 71,970.33	941,719.05
		86,453.77	7,335,767.68	7,422,121.45			283,300.25
		1,347,031.62	62,808,808.30	64,155,829.92	2,239,631.12	71,970.33	1,225,028.83
							65,098,471.86

## Notes:

- (1) Reclassified, as shown, by examiners b/c. sheet jul. entry No. 100, at 12/31/36.
- (2) Reclassified, as shown, by examiners b/c. sheet jul. entry No. 101, at 12/31/36.
- (3) Chgd. to surplus, as shown, by examiners b/c. sheet jul. entry No. 101, at 12/31/36.
- (4) Although no check has been attempted it seems likely that retirements of classified Reserve Gas Company acquisitions may be included in this amount.

## HOPE NATURAL GAS COMPANY

*Depletion and Depreciation Expense for the Year Ended Dec. 31, 1940*

Particulars	Plant balance, Jan. 1, 1940	Depreciation rate	Deple. and deprec. exp., year 1940
(a)	(b)	(c)	(d)
Natural gas production plant:			
• R-of-W and field line labor	\$4,312,320.58	Deple	\$175,004.00
Structures	210,393.60	4.17%	8,773.41
Fd. line mat'l and stat. equipment	7,887,851.72	2.22%	175,110.31
Operated acreage	1,570,191.83	Deple	57,084.00
Gas well equipment	7,468,118.73	2.50%	186,702.97
Gas well construction	4,068,489.32	Deple	286,492.00
Cost of abandoning gas wells		Deple	105,860.00
Drilling and cleaning equipment	625,013.06	Clearing acct. <sup>1</sup>	
Total, nat. gas prod. plant	26,162,379.74		995,026.69
Transmission plant:			
Mains mat'l, labor and equipment	14,631,829.54	1.56%	228,286.94
Structures	1,458,921.09	2.50%	36,473.03
Compressor station equipment	7,637,298.30	2.56%	195,514.84
Total, transmission plant	23,728,048.93		460,274.81
General plant:			
Structures and improvements	218,602.40	2.17%	4,743.07
Office furniture and equipment	186,518.29	4.00%	7,460.73
Other equipment	111,056.48	3.57%	3,964.72
Communication equipment	246,933.62	3.85%	9,506.97
Transportation equipment	156,390.93	Clearing acct. <sup>1</sup>	
Total, general plant	919,501.72		25,676.49
Subtotal	50,809,930.39		1,480,947.99
Nondepreciable plant:			
Natural-gas-producing lands	3,319.84		
Other land and land rights	20,801.29		
Transmission land	163,812.21		
General plant land and land rights	101,150.99		
Total, nondepreciable plant	289,084.33		
Total, gas plant in service (exclusive of distrib. plant),	51,099,023.72		1,480,947.99

<sup>1</sup> Depreciation expense on these accounts is distributed through clearing accounts. It is not considered necessary, or practicable, to revise company's depreciation accounting.

## HOPE CONSTRUCTION AND REFINING COMPANY

*West Virginia Gasoline Earnings, per Books and as Adjusted, Year Ended  
Dec. 31, 1940*

Particulars	Per books	Examiners adjustments	As adjusted
(a)	(b)	(c)	(d)
<b>Sales:</b>			
Gallons sold	18,094.389		18,094.389
Average price per gallon	\$0.0288		\$0.0288
Amount	521,949.77		521,949.77
<b>Expenses:</b>			
Production expense:			
Contract gas	62,435.67	662,435.67	
Less: Vapor fuel earnings	119,592.32	119,592.32	
Net cost of gas purchased	57,156.65	57,156.65	
Labor	52,139.07		52,139.07
Fuel and power	125,592.62		125,592.62
Other production expenses	98,649.40		98,649.40
Total direct production exp.	219,224.44	57,156.65	276,381.09
Overhead	26,803.27		26,803.27
Taxes	6,355.37		6,355.37
Depreciation	49,497.68	25,245.42	74,743.10
Total indirect production exp.	82,658.32	25,245.42	107,903.74
Total production expense	301,882.76	82,402.07	384,284.83
Gasoline purchased	8,777.52		8,777.52
Inventory fluctuations	1,392.42		1,392.42
Total cost of gasoline sold	312,052.70	82,402.07	394,454.77
Shipping, handling, and storage exp.	40,515.78	1,328.72	41,844.50
Administrative and general exp.	22,521.25		22,521.25
Federal income tax	28,000.00		28,000.00
Other miscellaneous charges and crs.	2,936.16		2,936.16
Total expense	406,025.89	83,730.79	489,756.68
Net earnings	115,923.88	83,730.79	32,193.09

*Italic figures denote decrease.*

## HOPE CONSTRUCTION AND REFINING COMPANY

*Butane Department Earnings per Books and as Adjusted Year Ended Dec. 31, 1940*

Particulars	Per books	Examiners adjustments	As adjusted
(a)	(b)	(c)	(d)
<b>Sales:</b>			
Gallons sold.....	5,018,902		5,018,902
Average price per gallon.....	\$0.0619		\$0.0619
Amount.....	310,902.68		310,902.68
<b>Expenses:</b>			
Production expense:			
Contract gas.....	25,957.50	<i>\$25,957.50</i>	
Less: Vapor fuel earnings.....			
Net cost of gas purchased.....	25,957.50	<i>\$5,957.50</i>	
Labor.....	4,173.47		4,173.47
Fuel and power.....			
Other production expenses.....	6,215.01		6,215.01
Total direct production expense.....	36,345.98	<i>\$5,957.50</i>	10,988.48
Overhead.....	3,957.73		3,957.73
Taxes.....	1,990.44		1,990.44
Depreciation.....	12,452.43	<i>\$06.95</i>	11,945.48
Total indirect production expense.....	18,370.60	<i>\$06.95</i>	17,963.65
Total production expense.....	54,716.58	<i>\$6,464.45</i>	28,952.13
Butane purchased.....	337.53		337.53
Inventory fluctuations.....	6,184.90		6,184.90
Total cost of butane sold.....	48,929.23	<i>\$6,464.45</i>	22,464.78
Shipping, handling and storage expense.....	31,528.51	<i>\$6.69</i>	31,501.82
Marketing expense.....	9,499.96		9,499.96
Administrative and general expense.....	12,130.75		12,130.75
Federal income tax.....	35,000.00		35,000.00
Other miscellaneous charges and credits.....	<i>\$38.94</i>	246.15	
Total expense.....	136,849.51	<i>\$6,444.99</i>	110,604.52
Net earnings.....	174,052.57	26,244.99	200,297.56

Italic figures denote decrease.

## HOPE CONSTRUCTION AND REFINING COMPANY

## Earnings Statement—Adjusting Entries Year 1940

	Dr.	Cr.
1		
Hope Natural Gas Company	\$88,393.17	
Operating expenses—Gasoline—W. Va.		\$62,435.67
Operating expenses—Butane		25,957.60
To reverse the royalty paid to the above company on the contractual basis of 1/4 of the net gasoline sales for the year 1940. This royalty was charged to gasoline and butane expenses under account "Gas Purchased." The purpose of this entry is to present the net-revenue of the West Virginia gasoline and butane departments excluding royalties.		
2		
Operating expenses—Gasoline—W. Va.	119,592.32	
Hope Natural Gas Company		119,592.32
To reverse the charges against the above company for vent gases returned to that company. According to the Commission Engineers these vent gases are the property of the Hope Natural Gas Company and no charge should have been made by the Hope Construction and Refining Company for the return of these gases. The revenue derived from this charge was credited to gasoline operating expenses, account "Vapor Fuel Earnings."		
3		
Operating expenses—Gasoline—W. Va.	78,676.95	
Operating expenses—Butane	12,574.19	
Operating expenses—Gasoline—W. Va.		52,102.81
Operating expenses—Butane		12,861.68
Surplus		26,286.65
To reverse entries recording annual depreciation, profits, or loss on plant and equipment retired, and profit or loss on sale of capital assets, and to set up depreciation expense on West Virginia gasoline and butane investment based on rates furnished by Commission Engineers, per the following detail:		

	Per books	Per examiners	Adjustment
(a)	(b)	(c)	(d)
Year 1940:			
Operating expenses—gasoline—W. Va.:			
Production expense depreciation	\$49,497.68	\$74,743.10	\$25,245.42
Shipping, handling, and storage expense, depreciation	2,605.13	3,933.85	1,328.72
Total	52,102.81	78,676.95	26,574.14
Operating expenses—butane:			
Production expense depreciation	12,452.43	11,945.48	506.95
Shipping, handling and storage expense depreciation	655.40	628.71	26.69
Profit or loss from sale of capital assets	246.15		246.15
Total	12,861.68	12,574.19	287.49
Total year 1940	64,964.49	91,251.14	26,286.65

Italic figures denote decrease.

484807-42-21

## HOPE CONSTRUCTION AND REFINING COMPANY

## West Virginia Gasoline and Butane Investment and Related Reserve for Depreciation—Year 1940

Investment		Adjusted plant investment			
		Balance Jan. 1	Additions	Retirements	Balance Dec. 31
(a)		(b)	(c)	(d)	(e)
Other West Virginia plants		\$1,429,952.34	\$20,014.15	\$45,170.90	\$1,404,795.59
Kennedy plant		258,876.66	932.71	188.59	259,620.78
Butane		261,663.62	2,214.84	530.24	263,348.22
Total		1,950,492.62	23,161.70	45,889.73	1,927,764.59
Computed reserve for depreciation					
		Balance Jan. 1	Provision	Salvage	Retirements
					Balance Dec. 31
4.79 Other W. Va. plants	\$1,085,281.08	\$67,892.21	\$1,537.14	\$45,170.90	\$1,109,530.93
4.16 Kennedy plant	207,322.21	10,784.74	192.62	188.59	218,110.96
4.79 Butane	186,651.54	12,574.19	457.22	530.24	199,152.77
	1,440,254.83	91,251.14	2,186.98	45,889.73	1,486,900.12
Average investment					
		Total	West Virginia	Kennedy	Butane
Average investment		\$1,939,128.60	\$1,417,373.96	\$259,248.72	\$262,505.92
Reserve for depreciation		1,473,029.02	1,097,410.30	212,716.59	162,902.13
Average net investment		466,099.58	319,963.66	46,532.13	99,603.79
Working capital		80,000.00			
Cost of sites		16,629.53			
Total investment		562,729.11			



## HOPE CONSTRUCTION AND REFINING COMPANY

*Kennedy Plant Net Earnings and Investment, Years 1939 and 1940*

Particulars	Year	
	1939	1940
<b>Sales:</b>		
Gallons sold	3,173,397	2,761,780
Average price per gallon	\$0.0319	\$0.0227
Amount	101,256.05	62,824.86
<b>Expenses:</b>		
Direct production expense (1)	16,568.22	14,963.49
Indirect production expense (2)	14,250.51	14,750.91
Other expenses (3)	19,310.50	19,276.24
Total expense	50,129.23	48,990.64
Net earnings	51,126.82	13,834.22
% of net investment	3,349.23	2,791.93
Difference	47,777.59	11,042.29
Average investment	257,799.62	259,248.72
Average reserve for depreciation	201,979.08	212,716.59
Average net investment	55,820.54	46,532.13
(1) Per books, excluding royalty	12,657.02	7,801.51
(2) Amounts allocated on following bases:		
Overhead—direct labor	2,527.98	2,993.08
Taxes—investment	968.07	973.08
Depreciation—as calculated	10,724.46	10,784.75
Total	14,250.51	14,750.91
(3) Amounts allocated on following bases:		
Shipping, handling, and storage—gallons produced	6,281.21	5,865.54
Administrative and general—direct charges	\$1,172.95	\$1,219.30
Federal income tax—net earnings before taxes	11,360.02	12,032.44
Other miscellaneous—direct charges	496.32	158.96
Total	19,310.50	19,276.24

## HOPE CONSTRUCTION AND REFINING COMPANY

## Gasoline Sales by Plants, Year Ended Dec. 31, 1940

Plant	Sales to Standard Oil Co. of N. J.				Sales to others				Total sales	
	Gallons	Average price	Amount	Gallons	Average price	Amount	Gallons	Average price	Amount	Amount
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
West Virginia:										
Bristol	196,232	\$0.0100	\$1,960.61	796,304	\$0.0322	\$25,670.03	996,626	\$0.0278	\$27,660.64	
Corwell				554,875	.0341	18,944.26	554,875	.0341	18,944.26	
Field and Drip	100,493	.0182	1,837.54	382,505	.0215	8,225.25	482,998	.0208	10,062.79	
Goff	286,924	.0160	4,585.46	432,604	.0327	14,136.64	719,528	.0260	18,722.10	
Hastings	2,065,210	.0210	44,019.84	8,633,725	.0322	277,819.62	10,728,935	.0300	321,839.46	
Kennedy	878,905	.0384	7,401.64	1,882,875	.0295	55,439.22	2,761,780	.0227	62,824.86	
Waverly	48,924	Adj.	369.10	1,372,733	.0325	44,621.52	1,420,757	.0317	44,990.62	
Total	3,607,788	.0167	60,204.19	14,057,711	.0316	444,840.54	17,665,499	.0286	505,044.73	
Purchased gasoline:										
* Sistersville repressuring unit	16,181	Adj.	4,726.71	412,709	.0296	12,178.33	428,890	.0394	16,905.04	
Total West Virginia	3,623,969	.0179	64,930.90	14,470,420	.0316	457,018.87	18,094,389	.0288	521,949.77	
Pennsylvania:										
Brave	1,522,871	.0113	17,189.88	4,531,663	.0278	126,168.32	6,054,534	.0237	143,358.20	
Imperial				54,780	.0411	2,250.80	54,780	.0411	2,250.80	
Jen-Guffey				117,732	.0573	6,750.83	117,732	.0573	6,750.83	
Total Pennsylvania	1,522,871	.0113	17,189.88	4,704,175	.0287	135,169.95	6,227,046	.0245	152,359.83	



Schedule No. 10

## HOPE NATURAL GAS COMPANY

34 Docket G-113

## Summary of Examiners' Adjusting Entries Showing Accounts Affected for the Year Ended Dec. 31, 1940

Entry No.	Description	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)
	Accounts 600-608 gas service revenues:				605, 1, sales to other gas util. (all)	608, other sales							
202	Eliminating compressing refund—Brave station			\$292, 158.36	\$292, 158.36								
203	Eliminating gas delivered to H. C. & R. Co. for all operations			73, 644.14		\$73, 644.14							
213	Reversing value placed on vent gas to H. C. & R. Co.			6, 000.30		6, 000.30							
	Total			371, 802.80	292, 158.36	79, 644.44							
						617.1	617.2	619.3,	619.6, gas				
					610, rent from gas prop.	Rev. from process. nat. gas	Contract gas	manage-ment fees and exp.	sales cont. adj.				
208	Accounts 810-819, other gas revenues:												
211	Transfer of W. Va. prod. and sales taxes			41, 334.28					441, 334.28				
214	Elimination and concurrent credit to operating expenses and other accounts.			109, 834.45	\$12, 440.36			\$122, 274.81					
	Reversing sale of contract and butane gas to H. C. & R. Co.			80, 591.66		54, 034.16	\$25, 957.50						
	Total			231, 760.39	12, 440.36	54, 034.16	25, 957.50	122, 274.81	441, 334.28				

211	Accounts 743, 746, natural gas production: Management fees and expenses trans- ferred	12, 579.09	733, oper. subject and engi- neering	734.2, field line labor	734.3, 61 mess. & reg. stat. labor	734.4, other prod. labor	735.2, field line equip. & exp.	735.3, 61 mess. & equip. & exp.	741, maint. of equip. well equip.	747.1, residuals produced, cr.	747.2, residuals operating, exp.
215	Gasoline and butane sales made by H. C. & R. Co.	852, 857.08	88, 815.71		8664.85	85, 010.11			8189.04	832, 854.06	
216	Expenses incurred by H. C. & R. Co., incident to extraction operations	800, 361.20									\$900, 361.20
217	Return on investment to H. C. & R. Co., incident to extraction operations	33, 763.75									\$3, 763.75
223	To eliminate alloc. costs arising from trans. of coke oven gas to Hastings Station	1, 961.00		4586.54	1, 904.62		866.90	8184.54			
	Total	\$15, 827.39	8, 815.71	885.54	1, 769.45	5, 010.11	86.90	184.54	189.04	832, 854.06	834, 124.95
253	Accounts 754, 757, other production expenses: Eliminating gas returned from H. C. & R. Co used for oil operations	67, 008.06	754.11, nat. gas purch. from oil. cos.	755.1, purch. gas oper. labor							
211	Management fees and expenses trans- ferred	2, 194.80		85, 194.80							
218	Eliminate book cost of natural gas purchased from H. C. & R. Co.	125, 167.98	156, 167.98								
219	Reimstate adjusted cost of natural gas purchased from H. C. & R. Co.	95, 143.08	95, 143.08								
	Total	112, 297.85	107, 632.95	8, 194.80							

Italic figures denote decrease.

35 Summary of Examiners' Adjusting Entries Showing Accounts Affected for the Year Ended Dec. 31, 1940—Continued

Entry No.	Description	759.111, Pumping station labor	759.1211, Pump station supp. & exp.	759.1212, Pump station fuel	759.21, Oper. of trans., mains—labor	759.22, Oper. of trans., mains—supp. & exp.	759.24, Other trans. system exp.	761.1, Maint. of pump. stat. struct.	762.1, Maint. of mains	762.21, Maint. of pump. stat. equip.	761.2, Joint exp. or	(n)	(o)
(a)	(b)	(c)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)		
202	Accounts 758-764 transmission expenses:												
203	Eliminating compressing re-fund—Brave station	\$292,158.50	\$292,158.50										
204	Differential of gas supplied to and returned by H. C. & R. Co	0,636.09											
211	Management fees and expenses transferred	1,367.87											
213	Adj. H. C. & R. Co. for gas & steam furnished	155,592.62		\$155,592.62			\$1,351.29			\$16.67	\$5,536.09		
220	Eliminate book cost of coke oven gas furnished by Domestic Coke Corp	\$65,510.44		285,310.44									
222	To eliminate direct costs arising from trans. of coke oven gas to Hastings station	30,842.68	5,695.78					\$4,767.24		5,527.45			
223	To eliminate alloc. costs arising from trans. of coke oven gas to Hastings station	5,158.11							\$1,104.40				
224	To restate in oper. exp. value of coke oven gas used at Hastings station for boiler fuel	68,683.83		68,683.83									
	Total	479,562.44	295,764.14	219,219.21	1,944.65	89.08	1,351.29	4,767.24	1,104.40	5,527.45	5,536.09		



	Accounts 765-777 distribution ex- penses	Direct distr. exp. transf'd	781, Cust. billing and acct'g.	782, Mis- cellaneous expenses	791, Other gen'l office sal.	792.1, Ex- penses of gen'l officers	792.2, Exp. of gen'l off. empl.	793, Gen'l office supp. & exp.	795, Special services	797, Reg- latory comm. exp.	800.1, Em- ployees welfare exp.	801, Misc'l gen'l expenses	802.3, Maint. of comm. equip.	805, Fran- chise require- ments	809, Rents	815, Depreci- ation
240	Admin. and general expenses adjusted	13,230.55	13,230.55													
241	Taxes expense adjusted	148,929.55	148,929.55													
243	Depreciation adjusted	80,345.10	80,345.10													
	Total	251,505.20	251,505.20													
211	Accounts 779-784 customers' ac- counting & collecting exp. Management fees and exp. transferred	1,000.01	\$588.69	\$410.55												
	Total	1,000.01	588.69	410.55												
211	Accounts 790-800 administrative and general expenses:		790, Sal. of gen'l off. and exec.	791, Other gen'l office sal.	792.1, Ex- penses of gen'l officers	792.2, Exp. of gen'l off. empl.	793, Gen'l office supp. & exp.	795, Special services	797, Reg- latory comm. exp.	800.1, Em- ployees welfare exp.	801, Misc'l gen'l expenses	802.3, Maint. of comm. equip.	805, Fran- chise require- ments	809, Rents	815, Depreci- ation	
212	Management fees and ex- penses transferred	89,045.05	\$15,554.74	\$92,948.11												
223	Reclassification, original cost and river rate expenditures suspended	284,041.50														
223	To eliminate alloc. costs arising from trans. of coke oven gas to Hastings station	568.49														
237	To eliminate certain donations from operating expenses	2,145.75														
238	To segregate certain expenses considered nonrecurring	85,058.97			1,979.40	\$5,651.64	18,154.89	40,201.97	341,978.25	4,081.85	4,592.05	4,081.85	4,081.85	4,081.85	4,081.85	4,081.85
240	To transfer direct distribu- tion expenses	18,280.55														
	Total	814,117.27	15,554.74	\$92,948.11	1,979.40	\$5,651.64	18,154.89	40,201.97	341,978.25	4,081.85	4,592.05	4,081.85	4,081.85	4,081.85	4,081.85	4,081.85

Italic figures denote decrease.

## Summary of Examiners' Adjusting Entries Showing Accounts Affected for the Year Ended Dec. 31, 1940—Continued.

Entry No.	Description	Net adjustment	603.1, Depreciation	503.2, Amort. and depl. prod. N. G. L. & L. R.	W. Va. gross sales tax adj.	Misc'l. Fed. and state taxes adj.	Taxes trans. to nonoper. rev.	W. Va. sales and purch. taxes	Penna. Inc. foreign and corp. tax	Taxes trans. to disbr. exp.
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
243	Accounts 603-606 depreciation and depletion:									
245	To trans. portion applying to distri. sys.	\$89,345.10	\$89,345.10	\$18,383.86						
246	To reverse the prov. for deprec. and depl.	1,258,457.19	1,258,457.19	57,084.00						
	To set up deprec. and depl. as per study	1,490,947.16	1,423,953.16							
	Total	153,144.87	114,444.73	38,700.14						
208	Account 507, taxes:									
223	Transfer of W. Va. taxes billed others	41,351.28						\$41,354.28		
226	To eliminate alloc. costs arising from trans. of coke oven gas to Hastings Station	11,164.29	\$11,164.29							
227	To adjust for over accrual of Fed. income tax for 1940	16,480.00		\$16,480.00						
228	To trans. taxes paid in and charged to 1940 oper. that are applicable to prior years	17,098.98				\$17,098.98				
229	To provide for under accrual of W. Va. gross sales tax 1940	312.53			\$312.53					
236	To eliminate taxes, not applicable to natural gas operations	3,218.10					\$3,218.10		\$4,601.53	\$118,029.55
241	To segregate certain Pa. taxes as nonrec	4,601.53							4,601.53	148,099.55
	To transfer direct distribution taxes	148,099.55								
	Total	248,614.00	11,964.29	10,480.16	312.53	17,098.98	3,218.10	41,354.28	4,601.53	148,099.55



## Summary of Examiners' Adjusting Entries Showing Accounts Affected for the Year Ended Dec. 31, 1940—Continued

Entry No.	Description	Net adjustment	538, Misc'l. inc. deductions	146, Other deferred debits	228, Taxes accrued	250.1, Res. for gas dep't. of plant	250.2, Res. for 271, Surplus begin of year
218	Accounts 530-538 income deductions: Reverse book cost of nat. gas purch. from H. C. & R. Co.	\$135,167.98	\$135,167.98				
219	Reinstate corrected cost of nat. gas purchased from H. C. & R. Co.	95,145.08	95,145.08				
220	Reverse book cost of coke oven gas used at Hastings and Gallagher Stations.	285,310.44	285,310.44				
222	Elimination of direct costs from oper. exp. attributable to trans. of coke oven gas	30,842.68	30,842.68				
223	Elimination of alloc. costs from oper. exp. attributable to trans. of coke oven gas	16,882.29	16,882.29				
224	Reinstate corrected cost of coke oven gas used as boiler fuel at Hastings Station.	68,685.85	68,685.85				
227	Elimin. of certain donations from oper. exp.	2,145.75	2,145.75				
	Total	306,522.23	306,522.23	145.4, Other work in progress stores exp.			
			126.2, Receiv. from assoc. cos.	\$624,041.30			
	Balance sheet accounts:	640.45					
211	Management fees and expenses transferred.						
212	Suspension of reclassification, original cost and river rate expenditures	624,041.30					
213	Reversing value of steam, etc. furnished by H. C. & R. Co. for extraction purposes	119,592.32	\$119,592.32				
214	Reversing charges to H. C. & R. Co. for contract and butane gas	89,591.66	89,591.66				
215	To charge H. C. & R. Co. with sale of gasoline and butane extracted	852,851.06	852,851.06				

216	To credit H. C. & R. Co. with expenses incurred thru extraction operations.....	600,561.80							
217	To credit H. C. & R. Co. with return on prop. used for extraction purposes.....	35,765.75	35,765.75						
226	Overaccrual of Fed. inc. taxes for year 1940.....	16,480.00					\$16,480.00		
227	Taxes paid in and charged to 1940 operations and applicable to prior years.....	17,068.98							\$17,068.98
228	Underaccrual of taxes at Dec. 31, 1940.....	512.53					512.53		
245	To reverse provisions for deprec. & depl.....	1,238,457.19							
246	To set up deprec. & depl. as per study.....	1,180,947.18							
248	To transfer recorded losses for abandoned leases.....	18,422.45							
	Total.....	636,481.06	237,726.76	640.45	624,041.30		16,167.47	57,084.00	17,068.98

Italic figures denote decrease

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## JOURNAL ENTRIES

39 Docket G-113

## HOPE NATURAL GAS COMPANY

## Examiners' Adjusting Entries

## ENTRY NO. 202

			Dr.	Cr.
605.1 Sales to other gas utilities (affiliated) .....			\$292,158.36	
750.1211 Pumping station supplies and expenses .....				\$292,158.36
To reduce revenues and expenses by the amount paid to The Peoples Natural Gas Co. in consideration for compressing gas sold to that company, under the provisions of the sales contract dated May 8, 1937, etc. This entry and entries following are given the same numbers as the comparable entry appearing in F. P. C. Exhibit 67A.				
Year	Sales MCF	Compressed by Peoples MCF		
1940 .....	9,738,612	9,738,612 .03		
		\$292,158.36		

## ENTRY NO. 203

608 Other sales .....					\$73,644.14	
754.11 Natural gas purchased from affiliated companies .....						\$67,008.05
764.2 Joint transmission expenses—Cr. ....						6,636.09
To reduce revenues and expenses by the amount of gas exchanged with Hope Construction and Refining Company during the year 1940, and recorded on the books as purchases and sales of gas, etc.						
Year	Total MCF	Total sales Amount	Repurchase Amount	Difference		
1940 .....	265,444	\$73,644.14	\$67,008.05	\$6,636.09		
265,444 @ \$.024 = \$6,636.09						

40

## ENTRY NO. 208

619.4 Miscellaneous gas revenues—Gas sales contract adjustments .....		\$41,334.28	
507 Taxes, 1940 .....			\$41,334.28
West Virginia production and sales taxes billed others as provided in sales contracts, etc.			



## ENTRY NO. 211

	Dr.	Cr.
619.3 Management fees and expenses.....	\$122,274.81	
145.4 Other work in progress—Stores suspense.....		\$640.43
610. Rent from gas property.....		12,440.36
733 Operation supervision and engineering.....		8,815.71
734.3 Field measuring and regulating station labor.....		564.83
734.4 Other production labor.....		3,010.11
741 Maintenance of producing gas well equipment.....		189.04
753.1 Purchased gas operating labor.....		5,194.30
759.24 Other transmission system expense.....		1,351.30
762.21 Maintenance of pumping station equipment.....		16.67
781 Customers' billing and accounting.....		588.69
792 Miscellaneous expenses.....		420.32
790 Salaries of general offices and executives.....		15,534.74
791 Other general office salaries.....		62,948.11
793 General office supplies and expenses.....		1,896.41
795 Special services.....		46.20
800.1 Employees' welfare expenses.....		4,081.83
801 Miscellaneous general expenses.....		4,535.76
To adjust the above balance sheet, operating revenue, and operating expense accounts as at Dec. 31, 1940, in order that the actual net expense be reflected, etc.		

## ENTRY NO. 212

146 Other deferred debits.....	\$624,041.30	
797 Regulatory commission expenses.....		\$341,978.25
801 Miscellaneous general expenses.....		282,063.05
To suspend the expenditures incurred during the year 1940 as shown by memorandum accounts for company's reclassification of property and river rate investigation in the general ledger, etc.		

## ENTRY NO. 213

126.2 Receivables from associated companies, Hope Construction and Refining Company.....	\$119,592.32	
606 Other sales.....	6,000.30	
759.1212 Pumping station fuel.....		\$125,592.62
To charge Hope Construction and Refining Company with the value placed on steam and gas furnished gasoline plants for extraction purposes, year 1940, etc. See gasoline extraction study for details of entries No. 213 to 217, inclusive, etc.		

## ENTRY NO. 214

617.1 Revenue from processed natural gas—Cont. gas.....	\$54,634.16	
617.2 Revenue from processed natural gas—Butane gas.....	26,957.50	
126.2 Receivables from associated companies, Hope Construction and Refining Company.....		\$80,591.66
To credit Hope Construction and Refining Company with the value per books representing royalties, year 1940, etc.		

## ENTRY NO. 216

	Dr.	Cr.
126.2 Receivables from associate companies.....	\$832,861.05	
747.1 Residuals produced—credit.....		\$832,861.05
To record in residuals produced account the revenue from sales of gasoline and butane that were extracted, etc.		

42

## ENTRY NO. 216

747.2 Residuals operating expenses.....	\$600,361.20	
126.2 Receivables from associated companies Hope Construction and Refining Company.....		\$600,361.20
To record in residuals produced operation account the expenses incident to production and sale of gasoline and butane, etc.		

## ENTRY NO. 217

747.2 Residuals operating expenses.....	\$33,763.75	
126.2 Receivables from associated companies.....		\$33,763.75
To record in residuals produced operation account the return on investment allowed Hope Construction and Refining Company, etc.		

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## ENTRY NO. 218

538 Miscellaneous income deductions.....	\$135,167.98	
754.11 Natural gas purchased from affiliated companies.....		\$135,167.98
To eliminate the balance recorded as cost of natural gas purchased from Hope Construction and Refining Company, this balance being amount remaining in Account 754.11 after giving effect to exchange gas adjustment by Entry No. 203.		
<b>MCF</b>		
Contract No. 456.....	1,052,630	
Exchange gas adjustment <sup>1</sup> .....	265,444	
Contract No. 456 (net).....	787,186	
Contract Nos. 198, 676, 1027, and 1098.....	41,968	
	829,154	
Less stipulation, Contract Nos. 198, 1027, and 1098.....	36,295	
Net MCF subject to adjustment.....	792,859	
<b>Value</b>		
Purchases.....	\$141,176.42	
Exchange gas.....	67,008.05	
Total per books.....	208,184.47	
Less stipulation, Contract Nos. 198, 1027, and 1098.....	\$6,008.44	
Exchange gas.....	67,008.05	
	73,016.49	
Value subject to adjustment.....	135,167.98	

<sup>1</sup> See Entry No. 203.

335

## ENTRY NO. 219

	Dr.	Cr.
734.11 Natural gas purchases from affiliated companies	\$95,143.08	
538 Miscellaneous income deductions		\$95,143.08
To reinstate the amount computed as cost of natural gas purchased from Hope Construction and Refining Company, based on the unit price that was recommended by the Bureau of Engineering. Details as follows:		
1940		
Total MCF	792,859	
Unit price	.12	
Amount	\$95,143.08	

## ENTRY NO. 220

538 Miscellaneous income deductions	\$285,310.44	
739.1212 Pumping station fuel		\$285,310.44
To eliminate from the operating expenses of the company charges made by Domestic Coke Corporation for coke oven gas used at Hastings and Gallagher Stations, etc.		
	MCF 1940	
Hastings Station	1,259,986	
Gallagher Station	325,072	
Total MCF	1,585,058	
@ \$0.18	\$285,310.44	

## ENTRY NO. 222

538 Miscellaneous income deductions	\$30,842.68	
739.111 Pumping station labor		\$19,142.21
739.1211 Pumping station supplies and expenses		3,605.78
761.1 Maintenance of pumping station structures		4,767.24
762.21 Maintenance of pumping station equipment		3,327.45
To eliminate from operating expenses the direct costs arising from the transportation of coke oven gas to Hastings Station, etc.		

## ENTRY NO. 223

538 Miscellaneous income deductions	\$16,882.29	
734.2 Field line labor		\$525.54
735.2 Field line supplies and expenses		56.90
734.3 Field measuring and regulating station—labor		1,204.62
735.3 Field measuring and regulating station—supplies and expenses		194.54
739.21 Operation of transmission mains—labor		1,944.63
739.22 Operation of transmission mains—supplies and expenses		89.08
762.1 Maintenance of mains		1,104.40
802.3 Maintenance of communication equipment		598.29
307 Taxes—1940		11,164.29
To eliminate from operating expenses additional expenses and taxes applicable to the transportation of coke oven gas not considered in company Exhibit No. 37, etc.		

## ENTRY NO. 224

	Dr.	Cr.
759.1212 Pumping station fuel	\$68,683.83	
538 Miscellaneous income deductions		\$68,683.83
To reinstate in operating expenses of the company, the value of coke oven gas used at Hastings Station for boiler fuel, etc.		
	1940	
MCF	1,259,986	
Unit price	.05455	
	\$68,683.83	

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## Statement of Adjustments to Operating Expenses and Taxes

Property account No.	Original cost of property			Operating expenses account No.	Year	Total operating expenses (stipulation)	Ratio applied	Amount of adjustment
	Total	Used to transport coke oven gas	Ratio					
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
333.1	\$11,296,741.40	\$50,476.43	0.004468	734.2	1940	\$117,622.76	0.004468	\$525.94
333.1				735.2	1940	12,734.02	.004468	56.90
333.2	184,385.03	10,087.67	.054710	734.3	1940	22,018.32	.054710	1,204.62
333.2				735.3	1940	3,555.83	.054710	194.94
333	14,132,074.72	292,275.72	.020682	759.21	1940	94,025.39	.020682	1,944.63
353				759.22	1940	4,307.10	.020682	89.06
353				762.1	1940	53,399.10	.020682	1,104.40
378	248,975.74	5,626.43	.022598	802.3	1940	26,475.37	.022598	598.29
100.1	51,207,620.64	762,592.06	.014892	507	1940	749,683.82	.014892	11,164.25

See the following table.

Property taxes	\$814,546.06
Less:	
Reserve Gas Co.	\$61,882.06
Nongas operations	2,980.18
	64,862.24
Net property taxes	749,683.82

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## ENTRY NO. 225

	Dr.	Cr.
228 Taxes accrued, Dec. 31, 1940	\$16,480.00	
307 Taxes, 1940		\$16,480.00
Overaccrual of Federal income tax for year 1940 based upon tentative, 1940 return and payment of \$245,880 as of Mar. 15, 1941. Details as follows:		
Total tax accrued per books	\$1,000,000.00	
Tentative income-tax return	983,520.00	
Overaccrual	16,480.00	

## ENTRY NO. 227

	Dr.	Cr.
271 Earned surplus, Jan. 1, 1940.....	\$17,098.98	
507 Taxes, 1940.....		\$17,098.98
Taxes paid in 1940 and charged to 1940 operations applicable to prior years.		
Kind of tax:	Amount	
Capital-stock tax, 1939.....	\$13,015.00	
Federal old age, 1939.....	800.28	
Federal unemployment, 1937.....	757.97	
Federal unemployment, 1938.....	788.07	
Gross sales, 1939.....	550.86	
Penna. corp. net income, 1935.....	361.54	
Penna. corp. net income, 1939.....	786.52	
Penna. foreign franchise, 1939.....	16.29	
Public Service Comm. fee, 1939.....	55.03	
	17,098.98	

## ENTRY NO. 228

507 Taxes, 1940.....	\$312.53	
228 Taxes accrued, Dec. 31, 1940.....		\$312.53
Underaccrual of 1940 West Virginia gross sales taxes based on 1940 final return. Details as follows:		
Total tax per 1940 final return.....	\$442,312.53	
Taxes accrued per books.....	442,000.00	
Underaccrual.....	312.53	

## ENTRY NO. 236

527 Nonoperating revenue deductions.....	\$3,218.10	
507 Taxes, 1940.....		\$3,218.10
Taxes not applicable to gas operations for year 1940:		
Total taxes paid and accrued.....	\$814,546.06	
Taxes on gas properties.....	811,565.88	
	2,980.18	
Tax on interest revenues.....	237.92	
Taxes not applicable to gas operations.....	3,218.10	

This is computed from tax returns to West Virginia Board of Public Works.

Italic figures denote decrease.

## ENTRY NO. 237

				Dr.	Cr.
538 Miscellaneous income deductions .....				\$2,145.75	
801 Miscellaneous general expenses .....					\$2,145.75
To transfer from the above administrative and general expense account, certain donations made by the company during the year 1940, etc.					
Details as follows:					
Vo. No.:	Amf.	Vo. No.:	Amf.		
B-85 .....	\$50.00	F-103 .....	\$15.00		
B-103 .....	100.00	G-101 .....	385.00		
C-104 .....	100.00	H-85 .....	5.00		
C-243 .....	5.00	L-101 .....	220.00		
D-104 .....	48.75	L-102 .....	25.00		
D-200 .....	2.00	M-85 .....	30.00		
E-101 .....	10.00	M-101 .....	100.00		
E-102 .....	50.00	M-104 .....	1,000.00		
			2,145.75		

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## ENTRY NO. 238

Nonrecurring expenses .....				\$85,058.27	
792.1 Expenses of general officers .....					\$1,979.00
792.2 Expenses of general office employees .....					23,531.54
793 General office supplies and expenses .....					16,238.46
801 Miscellaneous general expenses .....					33,798.41
803 Rents .....					9,570.24
To set out from operating revenue deductions certain operating expenses of the company that are of a nonrecurring nature. The courses of these expenditures, etc., Details as follows:					
Year	Reference	Description	Amount		
1940	(1) M38 .....	Clarksburg moving susp .....	\$532.91		
1940	(1) M332 .....	do .....	1,446.69		
1940	(2) M38 .....	do .....	11,051.12		
1940	(2) M332 .....	do .....	12,480.42		
1940	(3) M332 .....	do .....	16,238.48		
1940	(4) D104 .....	Proportion of cost World's Fair Exposition.	1,350.00		
1940	(4) M367 .....	Loss on experimental liquifying gas plant.	32,358.41		
1940	(5) Sundry .....	Rent at Pitts. office paid P. N. G. Co.	9,570.24		
			85,058.27		

- (1) Account 792.1 Expenses of general officers.
- (2) Account 792.2 Expenses of general office employees.
- (3) Account 793 General office supplies and expenses.
- (4) Account 801 Miscellaneous general expenses.
- (5) Account 803 Rents.



## ENTRY NO. 239

				Dr.	Cr.
Nonrecurring expenses.....				\$4,601.33	
807 Taxes, 1940.....					\$4,601.33
To set out from operating revenue deductions the amount of Pennsylvania State taxes that will not be assessed in future years by virtue of the removal of the company offices from that state, etc. Details as follows:					
Year	Reference	Description	Amount		
1940	M177	Penna. foreign franchise.....	\$1,819.20		
1940	M178	Penna. Corp. Net Income.....	2,782.13		
			4,601.33		

## ENTRY NO. 240

Distribution expenses.....				\$13,230.55	
806 Franchise requirements.....					\$13,230.55
To segregate for the purpose of this report certain administrative and general expenses that are exclusively devoted to the distribution and sale of natural gas in the State of West Virginia, etc. Details as follows:					
Year	Reference	Description	Amount		
1940	F45	Gross earnings tax Parkersburg.....	\$9,472.26		
1940	L104	Bond Parkersburg tax.....	125.00		
1940	M244	Gross earnings tax Parkersburg.....	3,633.29		
			13,230.55		

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## ENTRY NO. 241

	Dr.	Cr.
Distribution expenses.....	\$148,929.55	
507 Taxes, 1940.....		\$148,929.55
To segregate taxes specifically applicable to the distribution sales in the State of West Virginia for the purpose of this report. The following taxes are removed, etc:		
West Virginia gross sales tax:.....	1940	
Sales of tangible material--Retail.....	\$503.96	
Gas sales.....	133,338.30	
Rents.....	52.44	
Subtotal.....	133,894.70	
Mercantile tax:		
Various cities.....	19.00	
City license tax:		
Parkersburg.....	10.50	
Weston.....	13.00	
Clarksburg.....	19.25	
Subtotal.....	42.75	
Martinsburg privilege tax.....	422.50	
West Virginia Pub. Serv. Comm. fee.....	14,550.60	
	148,929.55	

1 Based on gross intrastate sale of gas.

## ENTRY NO. 242

Distribution expenses.....	\$89,345.10	
503.1 Depreciation.....		\$89,345.10
To segregate for the purpose of this report the depreciation that applies to the distribution operating property of the company, etc.		

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## ENTRY NO. 243

250.1 Reserve for Depreciation of gas plant.....	\$1,238,437.19	
503.1 Depreciation.....		\$1,220,073.33
503.2 Amort. and depl. of P. N. G. L. & L. R.....		18,363.86
This adjustment is to reverse the provisions for depreciation and depletion, as recorded on the books of the Company for the year ended Dec. 31, 1940, preparatory to setting up the depreciation and depletion expense as computed by the examiners.		
	Depreciation	Depletion
Amounts adjusted above.....	\$1,220,073.33	\$18,363.86
Amounts applicable to Reserve Gas Company.....	128,967.51	6,816.14
Amounts applicable to distribution system.....	89,345.10	
	1,438,385.94	25,200.00

## ENTRY NO. 246

	Dr.	Cr.
503 1 Depreciation		
503 2 Depletion of P. N. G. L. & L. R.	\$1,423,863.16	
250 1 Reserve for depreciation of gas plant	57,084.00	
250 2 Reserve for depletion of P. N. G. L. & L. R.		\$1,423,863.16
Test up in the income statement for 1940 the annual depreciation and depletion expense as computed by the F. P. C. examiners.		57,084.00
The depreciation expense for the year 1940 has been computed on the investment in plant accounts at Jan. 1, 1940, instead of the average investment for the year. Details of additions and retirements for the year 1940 have not been investigated.		
53 Depreciation expense for the year 1940 has been computed as shown on the attached sheet. The average cost per MCF of gas produced was found for the years 1937, 1938, and 1939 by dividing the annual expense by the annual production. The depletion expense per MCF of gas produced was found to remain practically uniform for the period. Therefore, the average for the above-mentioned years was applied to the estimated production for 1940.		
The estimate of 26,800,000 MCF of gas produced in 1940 was determined by the Bureau of Engineering, excluding the estimated production from the former Reserve Gas Company properties.		

## DEPLETION EXPENSE FOR THE YEAR ENDED DEC. 31, 1940

	Total 1937-1938-1939	Actual		Estimated 1940
		1937	1938	
Gas produced—MCF	51,106,896	20,013,836	14,546,830	26,800,000
Annual depletion expense:				
Operated acreage	\$106,894.17	\$40,703.36	\$31,407.84	\$57,084.00
Average cost per MCF	.00213	.00203	.00216	.00213
Field line R/W & constr	333,841.42	131,847.14	98,836.35	175,004.00
Average cost per MCF	.00553	.00559	.00529	.00553
Gas well construction	546,112.41	198,255.61	165,101.37	286,492.00
Average cost per MCF	.01069	.00991	.01135	.01069
Cost of abandoning	201,816.68	75,833.49	56,169.61	105,860.00
Average cost per MCF	.00395	.00379	.00386	.00395
Total depletable plant	1,190,654.68	446,640.10	351,515.17	624,440.00
Average cost per MCF	.02330	.02232	.02416	.02372

## ENTRY NO. 248

	Dr.	Cr.
512 Abandoned leases		
250.1 Reserve for deprec. of gas plant as of 12/31/41	\$12,422.43	
To transfer from the above reserve account the recorded losses for abandoned leases during the year 1940. This entry is given the same number as the comparable entry appearing in F. P. C. exhibit number 67A.		\$12,422.43

1 **EXHIBIT NO. 83-A.—ALLOCATION OF COST OF SERVICE,  
YEAR 1940, OF THE HOPE NATURAL GAS COMPANY,  
F. P. C. WITNESS LYON**

**WRITTEN EXPLANATORY STATEMENT**

This exhibit has been compiled and is presented to show for the year 1940 alone, information similar to that presented in a previous exhibit entitled "Allocation of Average Annual Cost of Service, Years 1937 to 1940, Inclusive, of the Hope Natural Gas Company."

The sources of information and the method of compilation of the tables in this exhibit have been the same as those of the previous exhibit, except as noted, and all statements made in connection with the previous exhibit apply with equal force to these tables. The working papers supporting the tables in this exhibit are the same as those supporting the previous exhibit covering the four years 1937-1940 inclusive.

The allocation of capacity costs in this exhibit, being for the one year 1940, has been based on the actual peak responsibility on the day of January 18, 1940 and the allocation of the volumetric costs has been based on the volume of deliveries during the calendar year 1940.

This exhibit incorporates, with appropriate notation, an additional minor adjustment relative to the elimination of incidental gas revenues of the former Reserve Gas Company during 1940 not made in the four year allocation, in order that this exhibit be in complete conformity with the exhibit of the accounting examiners of the Commission for the operations of the company during the year 1940 exclusive of the former Reserve Gas Company.

Signed **WM. H. LYON,**

**William H. Lyon.**

Dated, May 31, 1941, at Washington, D. C.



## HOPE NATURAL GAS COMPANY

TABLE I.—Summary of cost of gas service and comparison with revenues, year 1940

(1)	(2)	(3)	Pumping		Transmission mains regulating and measuring		(8)	(9)	(10)	(11)
			Volu- metric	Capacity	Volu- metric	Capacity				
Total cost of service with income taxes and return segregated:	West Virginia	\$2,071,909.95	\$72,096.73	\$133,602.76	\$88,390.12		\$795,713.55	\$391,942.02	\$3,554,384.13	\$3,459,461.90
	East Ohio Gas Company	7,143,057.81	250,619.93	1,035,682.46	585,126.22	\$278,553.43		1,704,861.66	11,357,901.50	14,725,648.02
	Peoples Natural Gas Company	1,773,960.53	62,237.32	183,710.47	177,943.85	194,374.43		457,051.40	2,839,178.00	3,457,207.29
	River Gas Company	71,267.06	2,503.90	5,912.76	9,222.66	15,958.39		23,649.67	128,612.46	137,150.65
	Payette County Gas Company	157,796.90	5,536.08	13,073.00	9,465.28	16,378.18		37,806.48	240,132.92	270,618.42
	Manufacturer's L. & H. Company	408,316.23	14,326.10	33,829.92	21,225.65	38,727.63		93,753.40	608,178.93	709,130.48
Total		11,626,356.48	407,920.06	1,405,871.37	891,382.80	831,992.06	795,713.55	2,709,151.62	18,728,367.94	22,750,216.76
Total cost of service with income taxes and return not segregated:	West Virginia	2,206,929.61	72,096.73	161,282.50	117,208.80				3,554,384.13	3,459,461.90
	East Ohio Gas Company	7,815,175.71	250,619.93	1,249,093.35	775,821.57	350,472.39	936,266.49		11,357,901.50	14,725,648.02
	Peoples Natural Gas Company	1,940,769.93	62,237.32	221,671.95	235,956.58	290,038.18			2,839,178.00	3,457,207.29
	River Gas Company	78,080.09	2,503.90	7,134.56	12,228.40	25,104.05			128,612.46	137,150.65
	Payette County Gas Company	172,633.69	5,536.08	15,774.37	12,550.07	7,874.31			240,132.92	270,618.42
	Manufacturer's L. & H. Company	446,736.29	14,326.10	40,820.40	28,143.18	20,376.91			608,178.93	709,130.48
Total		12,720,325.32	407,920.06	1,690,377.19	1,181,888.60	478,809.11	936,266.49		18,728,367.94	22,750,216.76

NOTE.—West Virginia includes domestic, commercial, industrial, drillers and pumpers, and special nonaffiliated gas utilities.  
 † Included in columns (2)–(8) inclusive.

## HOPE NATURAL GAS COMPANY

TABLE II.—Statement of Natural Gas Sales Revenues Year 1940

Line No.	Customer	Per books	Accounting adjustments	Less incidental-reserve Gas Co. sales <sup>1</sup>	Revenue
	(1)	(2)	(3)	(4)	(5)
1	Domestic and Commercial	\$2,069,232.90		\$20,616.09	\$2,048,616.81
2	Industrial	1,353,183.76		27.27	1,353,156.49
3	Total dom. com. and ind.	3,422,416.66		\$20,643.36	3,401,773.30
4	Drillers and pumpers	103,713.12	\$ 73,644.14	\$ 2,818.00	27,250.98
5	H. C. & R. Co. gasoline plants	6,000.30	\$ 6,000.30		
6	Special nonaffiliated natural gas utilities	30,437.62			30,437.62
7	East Ohio Gas Co.	14,726,736.17		7,088.15	14,725,648.02
8	Peoples Natural Gas Co.	3,749,365.65	\$22,158.36		3,457,207.29
9	River Gas Co.	137,150.65			137,150.65
10	Fayette County Gas Co.	270,618.42			270,618.42
11	Manufacturers Lt. & Ht. Co.	706,130.48			706,130.48
12	Total gas service revenues	\$ 23,152,599.07	\$71,802.80	\$4,549.51	\$22,756,246.76

<sup>1</sup> To eliminate incidental gas service revenues of former Reserve Gas Company in conformity with Schedule No. 4, column (g) of exhibit No. 78.

<sup>2</sup> In accordance with exhibit No. 78 examiner's adjusting entry No. 203.

<sup>3</sup> In accordance with exhibit No. 78 examiner's adjusting entry No. 213.

<sup>4</sup> In accordance with exhibit No. 78 examiner's adjusting entry No. 202.

<sup>5</sup> Exclusive of Northwestern Ohio Natural Gas Co. and Ohio Fuel Gas Co.

*Italic figures denote decrease.*

Reconciliation with total gas sales revenues in exhibit of accounting examiners of the commission:

Total gas sales revenues above	\$22,756,246.76
Less customer's forfeited discounts and penalties	23,786.74
Total per examiner's exhibit	22,732,430.02

## HOPE NATURAL GAS COMPANY

TABLE III

## STATEMENT OF ANNUAL VOLUMES OF SALES DELIVERIES M. C. F.

[On uniform pressure base of 8 oz. + 14.4/Sq. In.]  
Year 1940

Customers	F. P. C. exhibit No. 70B	Adjustments	Less: incidental reserve Gas Co. sales <sup>1</sup>	Total
(1)	(2)	(3)	(4)	(5)
Domestic and Commercial	5,480,252	<sup>2</sup> 216,084	78,150	5,618,186
Industrial	5,332,781	<sup>2</sup> 213,307	105	5,545,983
Total dom., com. and ind.	10,813,033	<sup>2</sup> 429,391	78,255	11,164,169
Drillers and Pumps	368,004	<sup>2</sup> 265,444	13,779	88,781
H. C. & R. gasoline plants	185,745	<sup>2</sup> 185,745		
Special nonaffiliated gas utilities	217,853			217,853
East Ohio Gas Company	39,548,404		5,135	39,545,269
Peoples Natural Gas Co.	9,820,415			9,820,415
River Gas Co.	395,090			395,090
Fayette County Gas Co.	873,537			873,537
Manufacturers Light & Heat Co.	2,290,513			2,290,513
Total	<sup>2</sup> 64,482,594	21,798	95,169	64,395,627

## STATEMENT OF PEAK RESPONSIBILITY IN M. C. F. DAILY JAN. 18 1940

Domestic and commercial	37,686	<sup>2</sup> 1,507	(*)	39,193
Industrial	17,497	3,700	(*)	18,197
Total dom., com. and ind.	55,183	<sup>2</sup> 2,207	(*)	57,390
Drillers and pumps	844	<sup>2</sup> 574	(*)	270
H. C. & R. gasoline plants	707	<sup>2</sup> 707	(*)	
Special nonaffiliated gas utilities	1,255		(*)	1,255
East Ohio Gas Co.	173,656		(*)	173,656
Peoples Natural Gas Co.	55,341		(*)	55,341
River Gas Co.	4,790		(*)	4,790
Fayette County Gas Co.	4,916		(*)	4,916
Manufacturers Light & Heat Co.	11,024		(*)	11,024
Total	<sup>2</sup> 307,716	926		308,642

<sup>1</sup> To eliminate incidental gas deliveries of former Reserve Gas Co. in conformity with Schedule No. 4 column (2) of Exhibit No. 78.<sup>2</sup> Four percent for distribution system losses.<sup>3</sup> In accordance with Exhibit No. 78 Examiners' Adjusting Entry No. 203.<sup>4</sup> In accordance with Exhibit No. 78 Examiners' Adjusting Entry No. 213.<sup>5</sup> Exclusive of Northwestern Ohio Natural Gas Co. and Ohio Fuel Gas Co.<sup>6</sup> No adjustment necessary since peaks of former Reserve Gas Co. were not included in F. P. C. exhibit.

Italic figures denote decrease.

## HOPE NATURAL GAS COMPANY

TABLE IV.—Statement of 1940 annual and peak-day pumpage, M. C. F.

Customer	Annual volumes					Peak-day volumes				
	1940 deliveries	Percent of sales pumped	Volume pumped	Number of pumpages	Pumpage	Peak-day deliveries	Percent pumped	Volume pumped	Number of pumpages	Pumpage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Domestic, commercial and industrial.	11,164,169	80	8,931,335	1	8,931,335	57,360	80	45,912	1	45,912
Drillers and pumpers	98,781					270				
Special nonaffiliate gas utilities	217,853					1,255				
East Ohio Gas Company	39,545,299	100	39,545,299	134	69,204,221	173,656	100	173,656	134	303,668
Peoples Natural Gas Company	9,820,415	100	9,820,415	134	12,276,519	55,341	100	55,341	134	92,419
River Gas Company	395,060	100	395,060	1	395,060	4,790	100	4,790	1	4,790
Fayette County Gas Company	873,537	100	873,537	1	873,537	4,916	100	4,916	1	4,916
Manufacturers Light & Heat Company	2,290,513	100	2,290,513	1	2,290,513	11,024	100	11,024	1	11,024
Total	64,365,627		61,826,179	134	92,940,215	308,642		295,639	134	462,959

NOTE 1.—Data in columns (2) and (7) taken from table III.

NOTE 2.—Domestic, Commercial and Industrial includes distribution losses.

Pages 6 to 13 omitted.]

1     **EXHIBIT NO. 90. RATE OF RETURN EARNED ON ORIGINAL COST BASE, YEARS 1937 TO 1940, INCLUSIVE, F. P. C. WITNESS DUNN**

**WRITTEN STATEMENT**

The attached schedules have been prepared to summarize the plant costs, reserves, and operating expenses for the four year period 1937 to 1940, inclusive, to show the profit earned and the rate of return on the original cost base. There are set forth certain rate adjustments proposed by the examiners which have not been made in the underlying exhibits, but are included here for the purpose of summarizing all costs expected to increase or decrease income in the future.

*Return Earned on Original Cost Base.*

Schedule No. 1 shows the average original cost base in the amount of \$31,281,373. This amount includes production, transmission, distribution, and general plant with the related reserves for depreciation and depletion deducted and the allowance for working capital added.

Net Operating Revenues are shown in the amount of \$4,125,399 as the annual average for the four-year period. The determination of net operating revenues, as adjusted, is shown by the income statements summarized on Schedule No. 1A. The expenses of the four-year period are expected to serve as a guide for future operating costs; therefore, certain nonrecurring expenses are not included in Schedule No. 1.

2     *Exploration and Development Costs.*

The actual costs and losses as set forth in accounts 510, 511, and 512 have been included as a deduction from net operating revenues for the four-year period. Due to cancellations of unoperated acreage delay rental cost is expected to be reduced in the future. However, the company is starting a program of exploratory deep drilling, and there is a known loss on the first of these deep wells of approximately \$200,000.00 due to a well completed dry in 1941. For this reason it is believed proper to include the full amount of exploration and development costs as shown.

### *Interest on Unoperated Acreage.*

Interest on unoperated acreage has been included as a deduction from net operating revenues. The investment has been classified as Gas Plant Held for Future Use which is not included in Gas Plant in Service. The examiners propose the allowance in operating expenses of interest as a carrying cost of the investment. A rate of 6% has been used pending the decision by the Commission as to a fair rate of interest.

The minor adjustment on Gas Plant Held for Future Use relates to adjusting entries 338 and 342, Exhibit No. 57A. Certain wells and field lines not used in prior years were placed in service in 1940.

It is proposed to amortize property reclassification and rate case expenditures over a period of ten years, being a period of six years in the future.

### *3 Adjustment of Income Taxes.*

The income taxes actually paid were included in the taxes account. This adjustment removes the Federal Income Taxes pending the determination of a fair return by the Commission and the computation of the indicated taxes on income at the latest tax rate.

For Federal Income Tax purposes certain deductions and allowances are made which are not recorded on the books or set forth in the examiners' income statements. To illustrate a method for the Commission to use in estimating an allowance for future income taxes, giving effect to whatever reduction in revenues may be ordered by the Commission, the following tabulation is submitted:

	1937	1938	1939	1940	Average
Income taxes paid.....	\$282,315	\$17,515	\$191,524	\$912,313	\$330,915
Income tax rate.....	14.9386%	16.5%	16.5%	24%	
Net taxable income.....	\$1,889,830	\$106,150	\$1,160,733	\$3,801,304	1,739,504
Assumed reduction (for illustration only).....					1,000,000
Revised net taxable income.....					739,504
Tax rate in effect.....					24
Allowance for income tax (illustrative only).....					177,481

Schedule No. 1 shows the annual average return earned in the amount of \$3,809,201 and the average rate of return earned on the original cost base as 12.18%.



4 *Return Earned on Original Cost Base, Exclusive of Distribution Plant, using Company Method.*

The company's method of determining return applicable to interstate sales avoids an allocation of costs to West Virginia domestic and industrial consumers. The rates to these consumers are subject to West Virginia regulation, and such sales amount to less than 20% of the total.

Company Exhibit No. 37 sets forth certain reasons why the method of crediting the revenue received from the local distribution of gas in West Virginia in excess of specific distribution costs to the production, transmission and general costs, should be adopted.

The return is worked out on the premise that the Company's local West Virginia business is unavoidable in carrying out its major business of exporting gas from West Virginia; and that these local sales being subject to West Virginia regulation, the remainder of the gross revenues therefrom after deducting specific distribution costs, is the full contribution of the West Virginia consumers towards the costs incurred jointly on account of all gas sold. The cost of the gas exported from the state is thus the Company's total production, transmission and general expenses after crediting this remainder of the revenue from local distribution of gas after deducting specific distribution costs.

Schedule No. 2 sets forth the plant costs, revenues, and operating costs which are taken from the other accounting exhibits. Schedule No. 2A shows the gas service revenues other than interstate sales and the specific costs which have been deducted. Return is computed at an assumed 6% on net original cost of distribution plant, including an allowance for working capital.

Schedule No. 1 shows the annual average rate of return earned at 12.18% on the total base as compared with 12.53% on the interstate base, shown by Schedule No. 2. The difference in return earned and the rate is \$104,535, representing the return on distribution plant included in Schedule No. 2.

EDWARD L. DUNN,  
Edward L. Dunn,

*Examiner in Charge of Field Assignment.*

WASHINGTON, D. C., June 2, 1941.

Approved:

W. E. BAKER,  
W. E. Baker,  
*Chief Accountant.*

CHAS. W. SMITH,  
Chas. W. Smith,

*Chief, Bureau of Accounts, Finance and Rates.*

**Rate of Return Earned on Original Cost Base Years 1937 to 1940, Inclusive**

	Year ended Dec. 31				4-year average
	1937	1938	1939	1940	
Original cost of gas plant in service		\$54,022,699	\$54,020,330	\$55,174,551	\$54,310.00
Reserves for depreciation and depletion	Same as 1938	24,807,523	25,423,364	26,076,378	25,278.66
Net original cost		29,215,176	28,596,996	29,098,173	29,001.33
Working capital		2,250,000	2,250,000	2,250,000	2,250.00
Original cost base	31,465,176	31,465,176	30,846,996	31,348,173	31,281.33
Net operating revenues	4,111,672	2,133,121	3,874,557	6,382,247	4,125.36
<i>Examiners' rate adjustments</i>					
Exploration and development costs	501,076	612,242	500,344	407,920	505.39
6% interest on unoperated acreage	35,063	35,063	35,063	35,063	35.00
Adjustment of gas plant held for future use				6,619	1.62
Amortization of rate case expenses	125,000	125,000	125,000	125,000	125.00
Adjustment of income taxes	282,915	17,615	191,521	912,918	280.66
Return earned	3,232,848	1,378,531	3,405,671	6,719,958	3,806.31
Rate of return earned	11.86%	4.38%	11.04%	21.45%	12.18%

Italic figures denote decrease.

Comparative income statement for the years 1937 to 1940, inclusive, as adjusted, showing an average year for the period

Account No.	Account	As adjusted				Average 1937-40
		1937	1938	1939	1940	
(a)	(b)	(c)	(d)	(e)	(f)	(g)
	<b>Gas service revenues</b>					
600	Residential sales	\$1,761,310.66	\$1,693,638.35	\$1,500,945.52	\$1,738,754.23	\$1,709,174.89
602.1	Commercial sales			245,974.46	286,075.75	
602.2	Industrial sales	1,586,031.56	1,008,073.71	1,256,210.19	1,352,796.21	1,295,777.92
603	Public street and highway lighting	462.96	452.35	308.51	225.20	302.25
604	Other sales to public authorities	8,240.31	7,796.16	259.39	269.69	4,138.88
605.1	Sales to affiliated utilities	14,118,030.22	12,254,495.65	13,814,430.85	18,320,005.96	14,626,740.68
605.2	Sales to nonaffiliated utilities	1,703,324.80	1,531,177.01	1,091,208.85	987,682.89	1,320,808.38
608	Other sales	60,919.13	47,577.38	35,632.97	46,480.00	48,702.39
	<b>Total gas service revenues</b>	19,258,569.64	16,513,210.81	17,808,970.74	22,732,130.02	19,095,795.30
	<b>Other gas revenues</b>					
610	Rent from gas property	28,455.91	29,326.00	23,426.64	35,833.90	29,290.77
612	Customers' forfeited discounts and penalties	21,559.35	21,310.58	21,564.58	23,786.74	22,055.37
618	Revenue from incidental oil sales	6,051.18	2,806.00	6,847.58	8,280.48	6,003.88
619	Miscellaneous gas revenues	29,193.20	9,174.27	16,856.45	39,269.83	23,622.93
	<b>Total other gas revenues</b>	85,299.94	62,615.45	68,695.45	107,170.95	80,942.95
	<b>Total operating revenues</b>	19,343,829.58	16,575,826.26	17,967,666.19	22,839,600.97	19,176,738.25

## HOPE NATURAL GAS COMPANY—Continued

Comparative income statement for the years 1937 to 1940, inclusive, as adjusted, showing an average year for the period—Continued

Account No.	Account	As adjusted					Average 1937-40
		1937	1938	1939	1940	(g)	
(a)	(b)	(c)	(d)	(e)	(f)		
	<i>Operating revenue deductions</i>						
733-749	Natural gas production	\$1,406,806.03	\$1,357,876.70	\$1,135,863.59	\$1,214,306.64		\$1,206,235.75
754-757	Other production expenses	8,160,523.92	7,671,342.50	7,630,871.08	8,493,753.37		7,990,070.22
758-764	Transmission expenses	1,097,806.20	1,003,808.63	1,432,855.53	1,761,018.71		1,623,872.27
765-777	Distribution expenses	526,715.29	505,252.04	434,987.02	466,633.17		483,146.88
779-784	Customers' accounting and collection expenses	101,459.07	111,535.84	158,275.48	154,819.90		131,522.58
785-788	Sales promotion expenses			5,891.75	6,088.80		2,995.13
790-809	Administrative and general expenses	913,999.26	886,828.30	806,908.00	839,566.18		862,310.42
803.1	Depreciation	1,346,944.66	1,262,391.35	1,214,640.95	1,423,863.16		1,311,900.04
803.2	Amortization and depletion of P. N. G. L. and L. R.	40,703.86	31,407.84	36,772.47	57,064.00		41,492.04
804	Amortization of other limited term G. I.		813.44	6,399.47	5,966.02		3,294.73
807	Taxes	1,318,109.62	1,001,688.19	1,227,673.65	2,034,283.70		1,395,438.79
	Total operating revenue deductions	15,212,157.85	14,442,734.83	\$4,063,108.99	16,457,353.71		15,051,338.85
	Net operating revenues	4,111,671.73	2,133,121.43	3,874,557.20	6,382,247.26		4,125,399.40
	Nonrecurring expenses	45,285.56	51,120.43	60,256.90	80,659.60		
	Utility income	4,066,386.17	2,082,001.00	3,805,300.30	6,292,587.66		4,125,399.40
	<i>Exploration and development costs</i>						
510	Delays rentals	469,204.33	466,747.55	407,284.24	363,295.21		436,562.84
511	Nonproductive well drilling	27,743.54	86,461.77	47,895.17	32,152.02		48,563.22
512	Abandoned leases	4,157.95	50,212.68	45,464.20	12,472.43		30,249.31

Total exploration and development costs		500,075.83	612,242.00	540,543.61	407,920.06	505,396.37
520-527	Net utility income	3,564,310.34	1,409,750.00	3,304,956.09	5,864,667.60	3,620,000.00
	Other income	431,335.82	543,414.23	225,714.43	250,123.06	285,901.83
	Gross income	4,005,646.16	2,013,164.23	3,530,670.52	6,114,790.66	4,005,901.83
	Income deductions	351,919.82	313,697.76	297,342.56	304,133.87	316,748.50
535-538	Net income transferred to surplus	3,653,726.34	1,699,466.47	3,233,327.96	5,810,656.79	3,689,153.33

## HOPE NATURAL GAS COMPANY

## Rate of Return Earned on Original Cost Base, Exclusive of Distribution Plant, Using Company Method

Description	1937				1938		1939		1940		Average 1937-40
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	
Original cost of gas plant in service, exclusive of distribution plant Reserves for depreciation and depletion	NAHIC as 1938	\$51,207,621	\$51,099,024	\$52,094,557	25,501,356	24,072,167	27,026,857	27,381,286	24,083,271	25,939,538	\$51,394,706
Net original cost Working capital		2,706,265	2,100,000	2,100,000	2,100,000	2,100,000	2,100,000	2,100,000	2,100,000	2,100,000	2,100,000
Original cost base for interstate sales	\$29,806,265	29,806,265	29,126,857	29,481,286	29,806,265	29,126,857	29,126,857	29,481,286	29,481,286	29,555,198	
Operating revenues from interstate business											
The East Ohio Gas Company	12,757,670	11,157,537	12,359,500	14,725,648	11,157,537	1,371,757	1,371,757	3,457,207	3,457,207	1,773,161	12,750,089
The Peoples Natural Gas Company	1,244,635	1,019,044	1,371,757	1,773,161	1,019,044	83,174	83,174	137,151	137,151	103,491	1,244,635
The River Gas Company	115,725	77,915	77,915	270,618	77,915	263,966	263,966	270,618	270,618	266,710	115,725
Fayette County Gas Company	297,531	263,966	263,966	706,131	263,966	787,738	787,738	706,131	706,131	1,044,380	297,531
The Manufacturers Light & Heat Company	1,425,050	1,258,602	1,258,602	1,425,050	1,258,602	1,258,602	1,258,602	1,425,050	1,425,050	1,425,050	1,425,050
Total interstate revenues	15,810,611	13,777,064	14,806,804	19,296,755	13,777,064	14,806,804	14,806,804	19,296,755	19,296,755	15,937,831	
Operating revenue deductions, exclusive of specific distribution costs											
Natural gas production	1,106,806	1,397,877	1,135,964	1,214,307	1,397,877	7,630,871	7,630,871	8,403,753	8,403,753	7,980,070	1,206,226
Other production expenses	8,160,524	7,671,133	7,630,871	1,761,019	7,671,133	1,432,856	1,432,856	1,761,019	1,761,019	1,623,872	8,160,524
Transmission expenses	1,067,806	1,063,866	1,063,866	806,968	1,063,866	806,968	806,968	806,968	806,968	806,968	1,067,806
Administrative and general expenses	513,999	886,828	886,828	1,214,641	886,828	1,214,641	1,214,641	1,214,641	1,214,641	1,311,960	513,999
Depreciation	1,346,945	1,292,301	1,214,641	1,423,803	1,292,301	36,772	36,772	1,423,803	1,423,803	1,311,960	1,346,945
Amortization and depletion of P. N. G. L. & L. R.	40,504	51,408	36,772	57,084	51,408	36,772	36,772	57,084	57,084	41,492	40,504



## Amortization of other limited-term oil

Taxes

	1,318,110	813	6,399	5,900	3,256
Total	14,584,984	13,825,947	1,227,074	2,034,284	1,395,439
6% interest on unoperated acreage					14,443,075
Exploration and development costs	35,063	35,063			35,063
Amortization of property reclassification and river rate expenditures	501,076	612,242	35,063	35,063	505,395
Other revenue	125,000	125,000	500,344	407,920	125,000
Adjustment of Federal income taxes	85,260	62,645	125,000	125,000	80,945
Adjustment of gas plant held for future use	282,315	17,615	68,635	107,171	350,916
Revenue from West Virginia sales	2,637,566	2,019,825	191,521	912,313	1,555
Total examiner's rate adjustments			2,329,716	2,036,120	2,455,764
Net Operating Income from Interstate Sales	2,495,832	1,327,680	1,929,525	3,141,002	2,200,510
Rate of return earned	3,629,439	1,278,797	3,302,464	6,107,945	3,704,696
	12.18%	4.29%	11.34%	22.41%	12.53%

Italic figures denote decrease.

**HOPE NATURAL GAS COMPANY**  
*Summary of Specific Distribution Costs*

	1937	1938	1939	1940	Average 1937-40
<i>Distribution adjustments</i>					
Accounts 600-608 gas service revenues	\$19,238,570	\$16,513,211	\$17,808,971	\$22,732,430	\$19,095,795
Operating revenues from export sale of gas	15,810,611	13,777,064	14,860,894	19,296,755	15,937,831
Revenues from sales of gas in West Virginia	3,427,959	2,736,147	3,032,077	3,435,675	3,157,964
Distribution expenses	445,159	422,985	352,987	377,288	399,605
Customers accounting and collecting expenses	101,459	111,536	158,275	154,820	131,522
Sales promotion expenses			5,802	6,069	2,995
Depreciation	80,556	82,268	82,000	89,345	83,542
Return—6% on net distribution investment <sup>1</sup>	103,388	99,534	103,207	112,013	104,536
Total cost of distributing gas in West Virginia	730,502	716,323	702,367	739,555	722,200
Balance available for credit to production, transmission, and general expenses	2,697,397	2,019,824	2,329,716	2,696,120	2,435,764

<sup>1</sup> Computed as follows:

Date	Original cost	Accumulated	Net cost depreciation	Working capital <sup>1</sup>	Base	Return at 6%
12/31/37	\$2,815,078	\$1,241,943	\$1,573,135	\$150,000	\$1,723,135	\$103,388
12/31/38	2,815,078	1,306,167	1,508,911	150,000	1,658,911	99,534
12/31/39	2,921,366	1,351,197	1,570,169	150,000	1,720,169	103,207
12/31/40	3,109,094	1,393,107	1,716,887	150,000	1,866,887	112,013

\* See the following table.  
Distribution materials and supplies

Distribution expense		\$617,665	\$75,000
Less:			
Depreciation	\$83,542		
Taxes	139,081	222,623	
Allocation of general	395,042		
12 1/2% of	121,796		
		516,838	64,605
Working capital—Distributor system		139,605	

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Schedule 2 B

## HOPE NATURAL GAS COMPANY

## Summary of Gas Service Revenues

Account No.	Account	1937		1938		1939		1940		Average	
		MCF (g)	Amount (d)	MCF (e)	Amount (f)	MCF (h)	Amount (b)	MCF (i)	Amount (j)	MCF (k)	Amount (l)
600	Residential sales	4,681,117	\$1,761,311	4,415,634	\$1,569,679	3,961,037	\$1,500,946	4,637,223	\$1,738,754	4,785,426	\$1,796,175
602 1	Commercial sales					653,024	245,954	763,696	294,076		
602 2	Industrial sales	6,269,778	1,586,032	3,894,636	1,008,074	4,825,474	1,226,210	5,332,676	1,352,796	5,088,141	1,295,778
603	Public street and highway lighting	1,191	463	1,169	452	794	369	584	225	934	392
604	Sales to other public authorities	24,358	8,240	22,658	7,796		250	629	210	12,455	4,134
	Total distribution	11,496,444	3,356,096	8,334,267	2,679,361	9,471,107	2,983,498	10,734,778	3,378,091	9,886,656	3,096,454
605 1	Sales to other gas utilities (affiliated)	38,914,073	14,118,030	31,499,933	12,254,196	38,069,416	13,814,431	50,593,453	18,320,096	40,208,469	14,626,741
605 2	Sales to other gas utilities (nonaffiliated)	5,673,272	1,692,587	4,833,549	1,522,568	3,341,153	1,052,463	3,100,700	976,740	4,162,191	1,311,060
	Total interstate	44,587,345	15,810,617	36,333,482	13,776,764	41,410,569	14,866,894	53,694,153	19,296,755	44,370,660	15,937,801
606 2	Sales to other gas utilities (nonaffiliated)	71,882	10,944	55,416	8,909	53,058	8,746	55,726	10,934	59,928	9,808
608	Other sales	335,740	60,919	255,948	47,577	194,139	39,633	247,485	46,680	253,243	48,762
	Total miscellaneous	407,622	71,863	254,364	56,486	247,197	48,379	303,211	57,614	312,271	58,570
	Total	58,698,411	19,438,579	46,868,833	16,511,211	53,028,273	17,898,971	63,612,292	22,732,480	54,569,587	19,065,797

**EXHIBIT NO. 92.—COMPARATIVE INCOME STATEMENT  
FOR THE THREE MONTHS ENDED MARCH 31, 1941,  
AND 1940. F. P. C. WITNESS DUNN**

**WRITTEN STATEMENT**

The attached income statement with data on operating revenues has been prepared from records of Hope Natural Gas Company without adjustment. It is presented for comparative purposes to show the results of operations for the latest period available.

The income data for the first three months of 1941 have been compared with those for the first three months of 1940. It is the opinion of the examiner that this comparison, which is made for the purpose of showing the general upward trend of the company's business, is proper for that purpose because there have been no major changes in the sales contracts and plant accounts. A change affecting operations that has been made in 1941 is the installation by The East Ohio Gas Company of a liquefaction plant at Cleveland. This plant can be filled to capacity during a period of low demand and emptied of its contents as need arises. It is reported that the experiment is successful and hence of benefit both to consumers and companies.

The attached statements include the revenues and expenses arising from the properties of the merged Reserve Gas Company. The operating results and properties of that company, by stipulation of counsel, have been excluded from the present investigation of Hope Natural Gas Company. For comparative purposes it is not deemed necessary to make the detailed study required to segregate the former Reserve Gas Company operating results, for the reason that such expenses and revenues are about the same for each period. This is further brought out in Schedule No. 2 which shows the following facts concerning sales to The Northwestern Ohio Natural Gas Company, the customer supplied by the former Reserve Gas Company:

	M. c. I.	Amount
Three months:		
1941	1,361,842	\$39,552.60
1940	1,354,702	\$40,410.00

The comparative income statement discloses the continuing upward trend of sales and profits. Operating revenues are up \$1,114,562.24 for the three-month period of 1941 over the corresponding period of 1940. Utility operating income is also higher by the amount of \$591,777.50 or approximately \$200,000.00 per month.

It is not intended that the attached schedules be used for purposes other than to indicate the trend of operations.

EDWARD L. DUNN,

Edward L. Dunn,

*Examiner in Charge of Field Assignment.*

WASHINGTON, D. C., June 16, 1941.

Approved:

W. E. BAKER,

W. E. Baker,

CHIEF ACCOUNTANT.

CHAS. W. SMITH,

*Chief, Bureau of Accounts, Finance and Rates.*



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## HOPE NATURAL GAS COMPANY

## Comparative Income Statement for the 3 Months Ended Mar. 31, 1941 and 1940

[Prepared from company's financial statements]

Account Number	Particulars	3 months ended Mar. 31	
		1941	1940
1	Utility operating income		
501	Operating revenues	\$9,174,808.95	\$8,090,246.71
	Operating revenue deductions		
2	Operating expenses:		
502	Gas purchased	2,890,172.08	2,426,452.04
	Other	1,031,755.46	1,671,404.82
	Total operating expenses	4,491,927.54	4,097,856.86
503	Depreciation	399,000.00	337,000.00
503.2	Amortization and depletion of productive gas land and land rights	6,300.00	6,300.00
504	Amortization of other limited term utility investment	1,881.83	1,829.11
505	Taxes	606,843.99	473,715.77
510	Lease rentals	99,160.68	133,072.47
511	Nonproductive well drilling	2,454.91	
	Total operating revenue deductions	5,568,568.95	5,045,784.21
	Utility operating income	3,606,240.00	3,044,462.50
3	Other income:		
52	Income from merchandising, jobbing, and contract work	122.85	245.69
521	Income from nonutility operations	14.79	11.63
522	Revenue from lease of other physical property	408.00	328.00
523	Dividend revenues	36.00	36.00
524	Interest revenues	86,046.63	49,841.91
525	Miscellaneous nonoperating revenues	250.23	140.45
527	Nonoperating revenue deductions	5.54	7.68
	Total other income	86,842.58	150,594.02
	Gross income	3,693,082.58	3,065,056.52
4	Income deductions:		
531	Other interest charges	1,693.37	1,516.81
537	Miscellaneous amortization	1,185.18	1,185.18
538	Miscellaneous income deductions	1,718.37	1,675.07
	Total income deductions	4,596.92	4,377.06
	Net income	3,688,485.66	3,060,679.46
5	Disposition of net income		
	Balance transferred to earned surplus	3,688,485.66	3,060,683.44

Error in statement—foot to \$50,611.36—difference not known.

Italic figures denote decrease.

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## HOPE NATURAL GAS COMPANY

## Comparative Statement of Operating Revenues—Account 501, for the 3 Months Ended Mar. 31, 1941 and 1940

(Prepared from company's financial statements)

Account number	Particulars	3 months ended Mar. 31					
		1941			1940		
		M. C. F.	Rate	Amount	M. C. F.	Rate	Amount
	Gas sales:						
600	Residential	1,917,833	\$0.2691	\$707,863.59	2,098,801	\$0.3684	\$773,294.84
602 1	Commercial	312,644	.3694	115,495.06	349,779	.3926	128,916.01
602 2	Industrial	1,599,648	.2496	399,222.03	1,406,582	.2545	357,921.55
603	Street and highway lighting	133	.3920	52.14	147	.3857	56.70
604	Other sales to public authorities	129	.3777	42.99	336	.3334	112.01
605 1	Affiliated utilities	19,038,949	.3720	7,082,471.84	15,742,759	.3723	5,861,371.09
605 2	Nonaffiliated utilities	2,503,036	.2024	756,934.62	2,611,681	.3066	800,726.79
608	Other sales	94,023	.2786	26,360.76	158,618	.2197	34,847.32
	Total sales	25,466,995		9,088,443.02	22,368,703		7,957,245.51
	Other gas revenues:						
610	Rent from gas property			7,361.13			7,078.24
612	Customer's forfeited discounts and penalties			7,949.49			9,042.98
617 1	Revenue from processing natural gas (contract gas)			21,289.78			20,127.61
617 2	Revenue from processing natural gas—Butane			8,750.08			6,965.39
618	Revenue from residential oil sales			2,153.89			2,425.60
619	Miscellaneous gas revenues:						
619 1	Warehouse sales			5,908.98			1,495.37
619 2	Unclaimed security deposits			19.39			2.24
619 3	Management fees and expenses			30,035.71			35,698.04
619 4	Unclaimed checks			7.75			1.48
619 5	Shop labor field			64.94			43.75
619 6	Gas sales contract adjustment						17,199.78
619 9	Other			2,869.96			2,959.46
	Total other gas revenue			86,365.92			107,000.20
	Total operating revenue			9,174,808.95			8,064,245.71
605 1	Sales to affiliated natural gas utilities:						
	The East Ohio Gas Company	10,628,809	.3850	4,092,091.47	9,763,410	.3850	3,738,912.46
	Do	3,193,198	.3100	989,891.38	2,531,912	.3100	784,892.72
	Total	13,822,007	.3677	5,081,982.85	12,295,322	.3626	4,523,805.18
	The Peoples Natural Gas Company	4,987,408	.3850	1,920,152.09	3,170,376	.3850	1,230,394.76
	The River Gas Company	228,534	.3500	80,396.90	277,061	.3500	96,971.35
	Total—as above	19,038,949	.3720	7,082,471.84	15,742,759	.3723	5,861,371.09

Italic figures denote decrease.

*Comparative Statement of Operating Revenues—Account 501, for the 3 Months Ended Mar. 31, 1941 and 1940—Continued*

Account number	Particulars	3 months ended Mar. 31					
		1941			1940		
		M. C. F.	Rate	Amount	M. C. F.	Rate	Amount
605.2	Sales to nonaffiliated natural gas utilities:						
	Fayette County Gas Company	374,236	\$0.3150	\$117,884.35	213,771	\$0.3150	\$68,837.87
	Manufacturers Light and Heat	748,469	.3150	235,767.74	939,827	.2150	205,045.51
	The Northwestern Ohio Natural Gas Company	1,301,842	.3000	390,552.60	1,334,702	.3000	400,410.60
	Total—as above	2,424,547	.53069	744,204.69	2,588,300	.3073	795,293.98

1 **EXHIBIT NO. 107—STATEMENT SHOWING INCREASES IN  
PAY ROLL DURING YEARS 1940 AND 1941 NOT RE-  
FLECTED IN OPERATING EXPENSES, HOPE WITNESS  
CHISLER**

Date effective	Monthly increase			Amount not reflected in operating expenses during year 1940
	Salaried employees	Wage earners	Total	
1940				
Mar. 1	\$220.00		\$220.00	2 months..... \$440.00
June 1	205.00		205.00	5 months..... 1,025.00
Sept. 1	340.00		340.00	8 months..... 2,720.00
Oct. 1	25.00		25.00	9 months..... 225.00
Nov. 1	630.00	\$5,232.91	5,862.91	10 months..... 58,629.10
Dec. 1	295.00		295.00	11 months..... 3,245.00
1941				
Mar. 1	360.00		360.00	12 months..... 4,320.00
June 1	4,272.50	8,563.41	12,835.91	12 months..... 154,030.92
Total amount not reflected in operating expenses				214,635.02
Less: Amount applicable to capital construction				22,463.50
Amount applicable to production, transmission, and general expenses				202,171.52

1 **EXHIBIT NO. 111.—PROPERTY RECLASSIFICATION AND  
F. P. C. RATE INVESTIGATION EXPENSE, HOPE WIT-  
NESS CHISLER**

Year	Account No. 801—Property reclassification expense	Account No. 797—Regulatory commission expense (F. P. C. rate investigation)	Total
1938 (F. P. C. Ex. 62-A, page 32) .....	\$52,151.00	\$1,532.57	\$53,683.57
1939 (F. P. C. Ex. 62-A, page 32) .....	228,054.26	315,066.86	543,121.12
1940 (F. P. C. Ex. 78, page 40) .....	282,093.05	341,978.25	624,071.30
1941 (first 4 months) .....	49,161.27	32,891.45	82,052.72
Actual expenditures to Apr. 30, 1941 .....	611,429.58	691,469.13	1,302,898.71
To completion—Estimate .....	63,570.42		63,570.42
To completion of hearings before F. P. C.— estimate .....		133,530.87	133,530.87
Total cost .....	\$75,000.00	\$25,000.00	\$1,500,000.00

(367)

1      **EXHIBIT NO. 66.—DETERMINATION OF COMPOSITE  
SERVICE LIVES OF GASOLINE AND BUTANE PROP-  
ERTY OF THE HOPE CONSTRUCTION AND REFINING  
COMPANY, F. P. C. WITNESS SOYSTER**

[Pages 1 to omitted]

**WRITTEN STATEMENT**

**PURPOSE**

The purpose of this work is to determine the annual rates of accrual for the depreciation, and the composite service lives, of the properties used by Hope Construction and Refining Company in the manufacture and marketing of gasoline, butane, and other byproducts derived from natural gas.

**SCOPE**

The properties under consideration, and for which service lives and annual rates have been determined, are only those in the state of West Virginia, which are carried on the books of the Hope Construction and Refining Company as gasoline investment and butane investment.

The Commission's accounting study of these properties has taken into consideration only the recent history of operations of these properties, namely for 1937, 1938, and 1939 (the last three years for which the records of the Company were complete). In this study of service lives there have likewise been taken into consideration only properties which have been carried on the books of the Company during the same three years. All plants included, with the exception of Littleton, have been used exclusively to process gas of the Hope Natural Gas Company.

2

**GENERAL STATEMENT**

For definitions of the terms used in this study, reference is made to an exhibit introduced in these proceedings by another member of the engineering staff of the Commission, which is entitled "Determination of Composite Service Lives of the Hope Natural Gas Company Property by Primary Accounts."

The first commercial installation in the United States, of facilities for the extraction of gasoline and other hydrocarbons from natural gas by the oil absorption process was at the Hastings gasoline plant. The Company has only one plant at which butane and other liquefied petroleum gases are made. It is located adjacent to the Hastings gasoline plant, and is practically inseparable from it. These two plants and the five other gasoline plants in the first list given below, were the only plants found to be operating when I made the inspection during the latter half of January 1941.

All West Virginia plants under consideration in this study which were in operation prior to 1920, were built by Hope Natural Gas Company and were operated by that company until transferred in that year to Hope Construction and Refining Company. The respective dates of construction, daily capacity, and operating status are as follows:

Name of plant	Original construction	Present capacity, gal. day	Status of property as of Dec. 31, 1939
Hastings gasoline	1914	40,000	Operating.
Hastings butane	1918	20,000	Do.
Waverly gasoline	1915	5,000	Do.
Kennedy gasoline	1917	20,000	Do.
Bristol gasoline	1918	8,000	Do.
Goff gasoline	1919	2,500	Do.
Cornwell gasoline	1926	12,000	Shut down temporarily. <sup>1</sup>

<sup>1</sup> Purchased from Reserve Gas Co., Dec. 31, 1938.

<sup>2</sup> Resumed operations October 1940.

Other West Virginia gasoline property on the Company's books as of December 31, 1939, is as follows:

Name of plant	Original construction	Purchased	Shut down	Status of property as of Dec. 31, 1939
Wright gasoline	1916		1935	Boiler plant in use, gaso. plant dismantled.
Ellentoro gasoline	1916		1931	Partly dismantled.
Salem gasoline	1922	<sup>1</sup> 1929	1939	Do.
Littleton gasoline	1924		1932	Retired in 1937.
Evans gasoline	1926		1931	Dismantled.
Other property:				
General investment	1916			In use.
Anshutz loading station		<sup>2</sup> 1926		Do.
Perrine loading station		<sup>2</sup> 1926		Dismantled.

<sup>1</sup> Purchased from Godfrey L. Cabot, Inc.

<sup>2</sup> Purchased from Carter Oil Company.



4 All gathering and compressing of gas delivered to the gasoline plants is done by the Hope Natural Gas Co. The Hope Construction and Refining Company's gasoline and butane activities are limited to the extraction and marketing of these products. The gasoline plants, with the one exception of the Waverly plant, are built on sites adjacent to compressor stations of the Hope Natural Gas Co.

At Hastings and Cornwell, steam for gasoline plant use is received from gas-fired boilers of the Hope Natural Gas Co.

Due to the location of the plants involved in these determinations, and the fact that they treat gas from many production sources, it has not been practicable to relate the service life of any of the properties to a particular gas field or known source of supply.

Consequently the service lives and annual rates of accrual for depreciation have been more particularly related to the necessity for these gasoline extraction facilities in relation to the property of the Hope Natural Gas Co.

## 5

## METHOD

At the beginning of these investigations a survey was made in the field covering all the principal extraction plants and other gasoline and butane properties of the Hope Construction and Refining Company, located in the State of West Virginia.

In the process of the survey, notes were made of the apparent age of the properties, the condition of maintenance, comparative working conditions and service requirements. Operating data were noted showing temperatures, pressures, rates of flow, quantity of gas handled, and products extracted. Operating conditions were discussed with those responsible for the operation and maintenance of the property, and information was secured relative to the adequacy of the facilities in use.

Opportunity was afforded, during the process of the survey, to inspect and study the Brave gasoline plant, situated at the site of the Brave Compressor Station of the Peoples Natural Gas Company on the Pennsylvania side of the West Virginia-Pennsylvania State line. This plant, originally constructed in 1915, is owned and operated by the Hope Construction and Refining Company, and is under the same general supervision as the plants in West

6 Virginia. It has a present daily capacity of 20,000 gallons of gasoline. In 1940, sixty percent of the gas treated by this plant came through lines of the Hope Natural Gas Company in the State of West Virginia. Except for the inclusion of a more

recent type of absorption equipment, the Brave plant is similar in character of construction and operation to the other plants of this Company involved in this discussion. The data on this plant serve as valuable support in the determination of service lives of the plants in West Virginia, although not used in the determination. For this reason this investigation was extended to include the Brave gasoline plant.

An analysis was made of the plant and investment of each of the several plants. The items of property were segregated into approximately forty separate groups or retirement units. Each group of property such as absorbers, boilers, rectifiers, tanks, etc., is composed of similar units and is set up with the related book costs. Due consideration was given to the net salvage value. An average service life with corresponding straight-line rate of accrual was determined for each of these groups of property at each plant.

In arriving at a composite service life and rate applicable to all plants, a composite life and rate was first determined for each plant and loading station which has been carried on the books of the Company during the past three years. From these the composite service life and rate of accrual was determined for all plants.

The Kennedy plant was considered individually, for the reason that it was owned and operated from 1917 to the end of 1938 by another company.

The average service lives of a number of classes of property in the several plants have been established with reasonable accuracy. For certain other classes of equipment, however, such as absorbers, rectifiers, stills, and fractionators, obsolescence, rather than physical deterioration, is the most important factor in the determination of service life.

Obsolescence in these plants is forcefully indicated by the high rate of steam consumption when compared with gasoline production. At Hastings and Cornwell plants, where the steam used is measured, the consumption is shown to be more than double that of more efficient plants for which data are available.

In order to determine the service lives of facilities which have been in use for some time it is necessary to estimate only the remaining life expectancy. This is the measure of the time from the date of consideration until it is unprofitable to continue the property longer in service. Improvements in the art of gasoline extraction have produced plants of greatly reduced in-

stalled cost as well as operating costs and at the same time much improved extraction efficiencies. Careful consideration of these facts has been applied in these determinations.

#### CONCLUSION

After taking into consideration all relevant factors, both functional and physical, the composite service life of all of the gasoline and butane properties of the Hope Construction and Refining Company in the State of West Virginia (with the exception of the Kennedy plant), was determined to be 20.9 years. The corresponding annual straight-line rate is 4.79 percent. The composite service life for the Kennedy gasoline plant was determined to be 24.0 years, and its corresponding annual straight-line rate, 4.16 percent.

On the following page of this exhibit is shown a tabulation of data for individual plants. These data are the basis for the composite figures above quoted.

(Signed) CHAS. J. SOYSTER,  
Chas. J. Soyster,  
Associate Engineer.

Date April 5, 1941, Washington, D. C.

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#### SUMMARY BY PLANTS

Tabulation of Composite Service Lives and Rates of Depreciation Accrual Determined for Gasoline and Butane Property in the State of West Virginia of the Hope Construction and Refining Company:

Property	Adjusted book cost as of Dec. 31, 1939	Composite service life (years)	Annual straight-line rate %
Hastings gasoline	\$990,898.99	23	4.35
Butane investment	261,693.62	25	3.98
WaTerly gasoline	171,297.29	28	4.30
Cornwell gasoline	185,026.10	27	3.65
Bristol gasoline	163,581.60	23	4.33
Goff gasoline	106,070.86	24	3.82
Wright gasoline	112,729.53	21	4.71
Littleton gasoline	196,342.58	11	8.80
Salem gasoline	22,706.50	16	6.47
Evans gasoline	16,384.99	10	9.72
Ellenboro gasoline	10,003.92	18	5.56
Anshutz loading station	23,142.39	24	4.19
Perrine loading station	44,973.93	23	4.41
General investment	20,105.00	21	4.75
Total	2,024,837.00	20.9	4.75
Kennedy gasoline	170,726.82	24	4.16
Total West Virginia gasoline and butane	2,195,563.82		

<sup>1</sup> When retired in 1937.

1     **EXHIBIT NO. 63.—REVENUE, EXPENSES, AND NET INVESTMENT OF HOPE CONSTRUCTION AND REFINING COMPANY PERTAINING TO GASOLINE EXTRACTION CONTRACT WITH HOPE NATURAL GAS COMPANY, THREE YEARS ENDED DECEMBER 31, 1939, F. P. C. WITNESS BLEASE**

**WRITTEN STATEMENT**

The Federal Power Commission, under date of October 14, 1938, issued an order of investigation into and concerning all rates, charges, classifications, rules, regulations, practices or contracts of Hope Natural Gas Company. In accordance therewith, an examination of the accounts and records of Hope Construction and Refining Company has been made, and, as a result, this report on the earnings and investment of the gasoline department is submitted.

*Purpose of this Exhibit.*

By contract dated June 30, 1920 (retroactive to January 1, 1920) Hope Construction and Refining Company agreed to process the natural gas of Hope Natural Gas Company passing through the pipe lines at the gasoline plants, and to extract therefrom gasoline and other products on a royalty basis. This contract specified that Hope Natural Gas Company was to receive one-fourth ( $\frac{1}{4}$ ) of the gasoline and other products extracted, but was to bear one-fourth ( $\frac{1}{4}$ ) of transportation costs to market.

Other provisions in this contract specified that all natural gas passing through the pipe lines at the gasoline plants was to be processed and returned without diminution in pressure, volume, and heating value, and that Hope Natural Gas Company was to furnish free water, steam, and electrical current, except at plants already equipped with their own supply.

2     A supplementary contract dated August 1, 1923, revised the royalty to be received by Hope Natural Gas Company to one-eighth ( $\frac{1}{8}$ ) of the gasoline and other products extracted, but with other provisions to remain the same.

This one-eighth royalty has continued to date and is being currently booked.

Hope Natural Gas Company Exhibit No. 37, Rate Statement, by George I. Rhodes, page 7, states "Such a low royalty is not appropriate in the eastern territory where prices received for gasoline and for field sales of gas are higher than in the midwest and accordingly in this exhibit the gasoline and butane royalties have been increased to the original fraction of  $\frac{1}{4}$  of the gross. This is a fair royalty."

Hope Natural Gas Company and Hope Construction and Refining Company are admittedly affiliated companies.

There are presented herein details of Hope Construction and Refining Company's investment in plant, for gasoline and other product extraction, devoted to processing Hope Natural Gas Company gas, and the earnings from these plants, in order to give the Commission factual data for determination of the proper credit to Hope Natural Gas Company for gasoline and other products extracted from its gas.

### 3 *Scope of this Exhibit.*

Hope Construction and Refining Company owns and operates oil and gas wells, lines, and appurtenant facilities in addition to its gasoline extraction plants. Also in addition to the gasoline and butane extraction plants in West Virginia devoted exclusively to processing gas of Hope Natural Gas Company, Hope Construction and Refining Company owns and operates gasoline plants in Pennsylvania and Ohio. These plants are known as the Brave, Imperial, and Jennings Guffey in Pennsylvania, and the Ludlow in Ohio. Of these, only the Brave plant in Pennsylvania processes gas originating from Hope Natural Gas Company's wells in West Virginia.

This exhibit has been confined principally to Hope Construction and Refining Company's investment in and earnings from its West Virginia gasoline and butane operations.

#### *A—Revenues and Expenses—All Departments.*

In addition to the gasoline extraction contract mentioned above, there exists a contract known as the "Service Agreement" between Hope Natural Gas Company and Hope Construction and Refining Company. The agreement was dated June 30, 1937 (renewed March 1, 1940). In this agreement Hope Natural Gas Company proposes to furnish at cost: (1) General administrative services, (2) general supervisory services, (3) general accounting services, (4) general engineering, (5) telephone and telegraph service, (6) annuities and benefits department services, (7) deple-

4 tion department services, (8) depreciation department services, (9) medical and health services, and (10) stationery department services. The bases for allocation of these services appear reasonable and the Examiners have taken no exception to either the amounts or methods of allocation.

Schedule No. A-1, "Earnings Statement, per Books," years 1937, 1938, and 1939, presents a condensed earnings statement of all departments of Hope Construction and Refining Company; oil, gasoline, butane, and gas. This statement was taken from the books of the company and has not been adjusted. The revenues, operating expenses, depreciation and depletion, taxes, and net operating revenues for each department are shown. It is of interest to note that the oil department shows a loss for the years 1938 and 1939, and that the gas department shows a loss for 1937, 1938, and 1939, while the gasoline and butane departments provide a profit for each year shown.

*Gasoline Department Earnings—All States.*

Schedule No. A-2, "Gasoline Department Earnings Statement, per Books," presents a condensed earnings statement of the gasoline department, and includes operations of all plants. This statement was taken from the books of the company and has not been adjusted. It shows for the years 1937, 1938, and 1939 the gasoline sales by gallons and dollars, a condensed summary of the gasoline expenses, and the net earnings of the gasoline department, which is in agreement with the gasoline department net earnings shown on Schedule No. A-1.

Schedule No. A-2a, "Revenue from Gasoline Sales by Plants," years 1937, 1938, and 1939, supports and is in agreement with the "Sales" shown on Schedule No. A-2. Schedule No. A-2a shows the gasoline sales for the three years, divided between states and plants, showing also the revenue received from purchased gasoline. This statement was taken from the books and records of the company and is unadjusted.

Schedule No. A-2b, "Gasoline Department Expenses," years 1937, 1938, and 1939, supports and is in agreement with the "Total Expenses" shown on schedule No. A-2. This statement was prepared from the books and records of the company in such detail as the accounts were kept. It will be noted that the primary purpose is to determine the cost of gasoline manufactured and the cost of gasoline sold, while there has been no segregation between operating and maintenance expenses.



*Earnings Statement—Adjusting Entries.*

Adjusting entries have been made for the West Virginia gasoline department earnings and for the butane department earnings.

Entry No. 1 reverses the royalty paid to Hope Natural Gas Company for the years 1937, 1938, and 1939, and to Reserve Gas Company for 1939. This royalty has been computed at  $\frac{1}{8}$  of the net sales and charged to gasoline and butane expense under account "Contract Gas." This reversal has been made in order to arrive at an earnings base on which a royalty or other credit may be computed.

Entry No. 2 reverses the charge for vent gas returned to  
6 Hope Natural Gas Company for the years 1937, 1938, and 1939. According to the Commission engineers, this vent gas is the property of Hope Natural Gas Company and no charge should have been made therefor by Hope Construction and Refining Company. Hope Construction and Refining Company records this charge in a compound journal entry. The company assumes that the vent gas returned is equal in value to the boiler gas and steam furnished by Hope Natural Gas Company to the gasoline plants, excepting the Goff plant, where the vent gases are metered. The entries recorded each month charge "Fuel and Power" with the boiler gas and steam consumed, and credit "Vapor Fuel Earnings" which is netted against "Contract Gas" on the earnings statements. The difference between the charge and credit, due to the Goff plant (See Fuel and Power Schedule No. A-3b), is credited to Hope Natural Gas Company. Hope Natural Gas Company records this net difference as a credit to "Miscellaneous Earnings."

If a complete reversal of the compound entry were made, namely, to reverse also the fuel charge, the gasoline earnings would be overstated; inasmuch as the cost of gasoline boiler fuel would be borne by Hope Natural Gas Company's gas compressor stations.

Entry No. 3 substitutes depreciation expense computed on rates furnished by the Commission engineers for the depreciation expense recorded on the books of account. It has been the company's policy to record depreciation expense on a straight  
7 line basis. The rates used on gasoline property have been 3% since 1934 (5% from 1920 to 1934) and 5% on butane property. The rate used in this study, as furnished by the Com-



mission engineers is 4.79% for both classes of property (See Schedules Nos. B-3 and B-5).

In addition, it has been the company's policy to charge or credit expenses under the accounts "Plant and Equipment Retirement" or "Profit or Loss from Sale of Capital Assets" with a calculated profit or loss resulting from the retirement of a capital asset. This profit or loss is computed by charging these accounts with the cost of the equipment retired or sold, and crediting the accounts with the salvage thereon and with the depreciation applicable thereto. The depreciation applicable thereto is the ratio which the total accumulated reserve bears at the beginning of the year, to the total investment by departments.

All of these entries have been set up by accounts and by years and have been posted to the appropriate adjustment columns on the West Virginia gasoline department, and the butane department earnings and expense schedules, Nos. A-3 and A-4.

*West Virginia Gasoline Department Earnings Statement—Schedule No. A-3 and Butane Department Earnings—Schedule No. A-4.*

In addition to being departmentalized, the revenue and expenses of Hope Construction and Refining Company are segregated between states. These segregations are accomplished by assigning directly to the proper department and state expenses as are readily identified as being applicable thereto, such as direct labor, materials, fuels, transportation expenses, rentals, etc.

Some expenses not readily assignable are allocated on the basis of gross investment; these are general office salaries and expenses, legal expenses, benefit plan expense, thrift plan expense and other miscellaneous expenses. Taxes are allocated on various bases; income tax on net earnings, franchise, capital stock, property taxes on gross investment, social security taxes on payrolls, etc. Depreciation, during the years included in this exhibit, is assigned directly to the depreciable property on which calculated. Gasoline depreciation is calculated at 3% of depreciable property and butane depreciation at 5%. Of the total thus calculated, 95% is deemed applicable to manufacturing facilities and 5% to shipping, handling, and storage facilities.

The amounts and bases of such allocations appear reasonable and the Examiners have made no adjustments by reason of these allocations.

Butane is extracted at only one plant, Hastings, located in West Virginia. All revenues from butane are allocated to the West Virginia district, but some of the expenses are allocated on the company's books to other states. An examination of these expenses indicates that they are primarily concerned with marketing butane produced at the Hastings plant, and as such, should be considered applicable to the revenue from that plant. In this exhibit the total net revenue from butane, including all expenses, has been presented rather than that of West Virginia only.

9 The revenues and expenses shown on the West Virginia gasoline department earnings statement for the year 1939 include revenues and expenses applicable to the Kennedy plant, operated in West Virginia and processing gas of Reserve Gas Company. This plant was purchased by Hope Construction and Refining Company from Reserve Gas Company on December 31, 1938. Though Reserve operated under its corporate identity during the year 1939, its common stock was owned by Hope Natural Gas Company. Reserve was merged with Hope Natural Gas Company on December 30, 1939; thus the fields from which Reserve drew its gas in 1939, will, in the future, be a part of the holdings of Hope Natural Gas Company.

Schedule No. A-3, "West Virginia Gasoline Department Earnings Statement," years 1937, 1938, and 1939, presents the sales, expenses, and net earnings for the years indicated. The schedule is further grouped to show these items as reflected on the books of the company, the Examiners' adjustments thereto, and the accounts as adjusted. The net effect of the Examiners' adjusting entries on the West Virginia gasoline earnings is a decrease, as follows:

Particulars	1937	1938	1939
Net earnings, per books	\$273,809.40	\$198,823.51	\$210,157.38
Examiners' adjustments	*65,875.05	96,144.06	78,137.45
Adjusted earnings	208,024.35	72,679.45	132,019.93

\* Italic figures denote decrease.

Schedule No. A-3a supports and is in agreement with "Total Expenses" shown on Schedule No. A-3. This schedule presents the operating expenses in detail and, similar to Schedule 10 No. A-3, is divided to show expenses per books, adjustments thereto and the expenses as adjusted for the years indicated.

Schedule No. A-3b supports and is in agreement with the

"Fuel and Power" account shown on Schedule No. A-3a. This schedule is divided to show by years the amount and type of charge entering the fuel account of each plant. The column headed "Excess of Boiler Fuel over Vapor Fuel Returned" represents the net credit to Hope Natural Gas Company for the difference between boiler fuel furnished and the vapor fuel returned. This has been discussed above in Examiners' Adjusting Entry No. 2.

Schedule No. A-4, "Butane Department Earnings Statement," years 1937, 1938, and 1939, is similar in form and content to Schedule No. A-3. However, the net effect of the Examiners' adjustments of the Butane department earnings is an increase, as follows:

Particulars	1937	1938	1939
Net earnings, per books	\$181,786.70	\$110,546.45	\$165,720.09
Examiners' adjustments	23,862.82	17,448.10	26,443.65
Adjusted earnings	205,649.52	128,034.55	192,163.74

Schedule No. A-4a, "Butane Department Earnings," years 1937, 1938, and 1939, supports and is in agreement with "Total Expenses" shown on Schedule No. A-4. This schedule is similar in form and content to Schedule No. A-3a.

11. The earnings of Hope Construction and Refining Company applicable to the extraction of by-products from gas of Hope Natural Gas Company, as outlined above, are as follows:

**HOPE CONSTRUCTION AND REFINING COMPANY**  
*Summary of West Virginia Gasoline and Butane Earnings*  
*Years 1937, 1938, 1939*

Particulars	1937	1938	1939
Net earnings, per books:			
West Virginia gasoline department	\$273,869.40	\$168,823.51	\$210,157.38
Butane department	181,786.70	110,546.45	165,720.09
Total	455,656.10	279,369.96	375,877.47
Examiners' adjustments:			
West Virginia gasoline department	65,875.03	96,144.06	78,357.46
Butane Department	23,862.82	17,448.10	26,443.65
Total	89,737.85	113,592.16	104,801.11
Net earnings, as adjusted:			
West Virginia gasoline department	208,024.37	72,679.45	132,019.92
Butane department	205,649.52	128,034.55	192,163.74
Total	413,673.89	200,714.00	324,183.66

*B.—Investment and Depreciation Reserve.*

The books of account reflect investment in gasoline and butane plants by plants, but the reserve for depreciation is kept only by departments. In order to ascertain the investment and related reserve for depreciation the balances in plants were listed and this exhibit deals with all West Virginia plants, active or inactive, that have appeared in the gasoline investment ledger within the 12 past five years (1935 to 1939, inclusive). These are termed herein as "currently active West Virginia plants."

Hope Natural Gas Company sold all of its gasoline and butane investment to Hope Construction and Refining Company as of June 30, 1920 at net book cost. Several of the plants dealt with in this exhibit were constructed prior to 1920 and from the period of construction to June 30, 1920, were the property of Hope Natural Gas Company. These are the Bristol, Ellenboro, Goff, Hastings, Waverly, and Wright plants and certain investments termed as General.

This study traces each plant to its origin and no adjustments are made by reason of title transfer.

All credits appearing in the plant accounts were analyzed and the retirements of plant and salvage applicable thereto are summarized on Schedules Nos. B-1b, sheet 1, and B-1b, sheet 2, respectively. These sheets show the retirements and salvage, by years and by plants, of the currently active gasoline plants. Schedule No. B-1a shows the investment as of December 31, by plants and by years, 1914 to 1939, inclusive, in the currently active West Virginia plants.

*Currently Active West Virginia Plants.*

Schedules Nos. B-1b (1) and B-1a have been posted to a summary Schedule No. B-1, "Investment in Currently Active 13 West Virginia Plants, Excluding Kennedy Plant" in the appropriate column under caption "Investment per Books." In Schedule No. B-1 is a column for Examiners' adjustments and the adjusted investment in currently active West Virginia plants is extended to the right in four columns.

The adjustments appearing in Schedule No. B-1 are five in number, and are listed and described by individual entries shown on Schedule No. B-2, "Gasoline Investment—Adjusting Entries."

The adjusted gasoline investment shown on Schedule No. B-1 is posted to the first four columns on Schedule No. B-3 "Investment in Currently Active West Virginia Plants—Excluding Ken-

nedy Plant, and Related Reserve for Depreciation." The cost of the sites on which the plants were built was carried on the books of account as gasoline investment to 1937, but in 1938 was transferred to balance sheet account No. 302-3, "Other Lands, Leases, and Easements."

This cost, as carried on the gasoline investment ledger is shown on Schedule No. B-3 for the purpose of arriving at the depreciable plant balance. It has been assumed in this study that all gasoline investment, except the sites, is depreciable, and that the additions and retirements were incurred as of June 30 of each year. Thus the average balance less the cost of sites is listed under column headed "Average Depreciable Balance" on Schedule No. B-3.

To this balance is applied the depreciation rate supplied by the Commission engineer to arrive at the annual depreciation shown on Schedule No. B-3 under "Computed Reserve for Depreciation—Provision" column. Also under this "Computed Reserve for Depreciation" are columns for "Net Salvage" to which are posted the figures from Schedule No. B-1b, sheet 2, previously discussed, and for "Retirements" which are taken from similar column on Schedule No. B-1. The result is that the provision, plus salvage, less retirements, equals the balance of the reserve for depreciation applicable to the currently active West Virginia plants.

*Investment in Kennedy Gasoline Plant and Related Reserve for Depreciation—Schedule No. B-4.*

The Kennedy plant was acquired by Hope Construction and Refining Company as of December 31, 1938, from Reserve Gas Company. The investment on the books of Reserve Gas Company on that date was as follows:

Book cost	\$256,722.59
Reserve for depreciation	182,322.43
Book value	74,400.16

Hope Construction and Refining Company recorded the purchase on the books of account as follows:

Dr. Gasoline investment	\$170,000.00
Property purchased account (Reserve Gas Company)	170,000.00
Cr. Reserve Gas Company	\$170,000.00
Property purchased account	170,000.00

15 For the purpose of this study the investment is deemed to be that carried on the books of Reserve Gas Company, and the related reserve for depreciation is computed with rates furnished by the Commission engineer on book balances from the date of construction to December 31, 1939, in the form and manner described for the other West Virginia plants.

Inasmuch as the revenues from this plant appear on the earnings statement for only the year 1939, the investment, reserve for depreciation and annual provision are also included in the summaries in this exhibit for only the year 1939.

*Butane Investment and Related Reserve for Depreciation—  
Schedule No. B-5.*

Schedule No. B-5 presents the butane investment and its related reserve for depreciation. Both the investment and its reserve have been prepared and computed in the same manner as that previously discussed for currently active West Virginia plants.

Schedule No. B-6 and Schedule No. B-6a are summaries. No. B-6 summarizes the investment and retirement reserve for the currently active West Virginia plants, the Kennedy plant, and the butane property as of December 31, 1937, 1938, and 1939, as shown on Schedules Nos. B-3, B-4, and B-5, respectively. Schedule No. B-6a is a condensed summary of the average investment, reserve, and net investment for each of those years.

16 The average net investment as shown on Schedule No. B-6a for each year is as follows:

<i>Year</i>	<i>Amount</i>
1937	\$681,131.57
1938	591,177.88
1939	563,227.65

*C—Working Capital.*

The working capital requirements of Hope Construction and Refining Company necessary for the conduct of its West Virginia gasoline and butane operations is estimated to be \$80,000.00. This is the total of the inventory of gasoline and butane products, merchandise and forty-five days of adjusted operating expenses after deduction of taxes and depreciation, as follows:



Particulars	1937	1938	1939	Average
Adjusted gasoline expenses	\$480,329.66	\$411,972.84	\$479,039.13	\$457,113.88
Adjusted butane expenses	85,826.39	65,348.53	89,484.04	80,219.65
Total	566,156.05	477,321.37	568,523.17	537,333.53
Less—taxes and depreciation	124,953.21	96,342.61	154,187.93	125,161.25
Net	441,202.84	380,978.76	414,335.24	412,172.28
45,360 of above	55,150.36	47,622.35	51,791.90	51,521.54
Gasoline and butane products	17,936.27	30,313.28	17,715.00	22,000.18
Butane merchandise	3,124.12	3,340.21	4,364.45	3,609.59
Automotive equipment				2,120.80
Total				79,252.11
or Say				80,000.00

Depreciation has been eliminated because it does not require a cash outlay. Taxes, with minor exceptions, are not payable until the year following that to which applicable.

No allowance has been made for prepayments since this item is relatively small and is more than offset by accounts payable. No allowance has been made for bank balances, inasmuch as the collection of taxes in advance of payment tends to build cash funds and also because the forty-five day lag in expenses is greater than is normally incurred in collection of revenue. The average balance, years 1937, 1938, 1939, in the gasoline and butane accounts receivable for the month of December represents only 19.63 days of the average sales for those years.

*D—Appendix—Balance Sheet and Balance Sheet Details.*

There is included in this exhibit Hope Construction and Refining Company's comparative balance sheets for the years 1937, 1938, and 1939 as Schedule No. D-1. The individual items on the balance sheet are analyzed in supporting schedules numbered D-1a to D-1g, inclusive. The amounts appearing on all of these schedules were taken from the books and records of the company and have not been adjusted.



**Conclusion.**

The results of the foregoing statements are summarized as follows:

Particulars	1937	1938	1939
Average net investment	\$681,131.57	\$591,177.88	\$593,227.47
Working capital	80,000.00	80,000.00	80,000.00
Total	761,131.57	671,177.88	673,227.47
Earnings at 6% on above investment	40,867.89	40,270.67	38,593.66
Net earnings, as adjusted	413,673.89	200,714.00	324,183.96
Excess of adjusted earnings over 6% of average investment	368,006.00	160,443.33	285,590.30

18 It is recommended that the accompanying entries (pages 19 to 21) be reflected in the Commission's rate study, in order that Hope Natural Gas Company may receive the proper credit for the products extracted from its gas. The credit to Hope Natural Gas Company is the excess of earnings after allowing Hope Construction and Refining Company all costs incurred in connection with the extraction of gasoline and other products plus a reasonable profit. It is recommended that the Commission determine the reasonable rate of return to be applied to the net original cost of Hope Construction and Refining Company property devoted to this phase of its operations. Pending a determination by the Commission, return has been computed herein at 6%.

ERNEST B. BLEASE,

Ernest B. Blease,

*Senior Examiner of Accounts.*

EDWARD L. DUNN,

Edward L. Dunn,

*Examiner in Charge of Field Assignment.*

CLARKSBURG, WEST VIRGINIA, March 12, 1941.

Approved:

W. E. BAKER,

W. E. Baker,

*Chief Accountant.*

CHAS. W. SMITH,

Chas. W. Smith,

*Chief, Bureau of Accounts, Finance and Rates.*

[Pages 19 to 30 omitted.]

## HOPE CONSTRUCTION AND REFINING COMPANY

## West Virginia Gasoline Department Earnings Statement Per Books and as Adjusted Years 1937, 1938, and 1939

Particulars	Per books			Examiners' adjustments			As adjusted		
(a)	1937	1938	1939	1937	1938	1939	1937	1938	1939
<b>Sales:</b>	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Gallons sold	13,915,175	11,682,889	16,755,331				13,915,175	11,682,889	16,755,331
Average price per gallon	\$0.0495	\$0.0415	\$0.0395				\$0.0495	\$0.0415	\$0.0395
Amount	\$688,354.03	\$484,652.29	\$661,039.05				\$688,354.03	\$484,652.29	\$661,039.05
<b>Expenses:</b>									
Production expense:									
Contract gas	\$82,257.14	\$58,593.34	\$75,563.76	\$82,076.76	\$58,593.54	\$75,563.76	\$190.38		
Less: Vapor fuel earnings	\$58,149.22	127,771.12	117,640.58	138,144.22	127,771.12	117,640.58			
	\$25,867.08	69,177.78	\$4,076.82	50,937.46	69,177.78	\$4,076.82	190.38		
Net cost of gas purchased									
Labor	51,528.46	50,396.47	59,138.33				51,528.46	\$50,396.47	\$50,198.33
Fuel and power	147,686.82	135,224.89	124,730.63				147,686.82	135,224.89	124,730.63
Other production expenses	73,052.09	75,377.62	85,276.50				73,052.09	75,377.62	85,276.50
Total direct production expense	216,390.26	191,811.29	272,195.64	56,067.46	69,177.78	\$4,076.82	272,447.75	260,988.98	256,182.46
Overhead									
Taxes	30,134.25	21,830.18	24,380.17				30,134.25	21,830.18	24,380.17
Depreciation	8,234.42	7,267.83	5,632.95				8,234.42	7,267.83	6,682.16
	49,472.10	41,821.67	49,695.37	18,343.85	21,655.83	26,258.49	67,770.95	69,477.20	75,925.86
Total indirect production expense	87,706.77	71,919.48	80,679.79	18,343.85	21,655.83	26,258.49	106,139.62	95,575.21	106,908.19
Total production expense	304,097.03	263,730.77	352,875.43	74,411.31	90,833.61	30,335.31	378,587.37	356,564.19	363,120.65

Gasoline purchased	14,707.64	16,243.22			14,757.64	16,243.12	8,778.08
Inventory fluctuations	56,342.97	18,644.62			6,342.97	18,644.62	11,302.77
Total cost of gasoline sold	311,590.73	380,887.08			387,002.04	380,162.69	383,257.50
Shipping, handling, and storage expenses	41,583.18	39,557.43			45,558.63	43,697.19	40,631.92
Administrative and general expenses	35,095.69	13,238.08			35,095.69	13,238.08	18,137.47
Federal income tax	16,000.00	29,333.60			16,000.00		29,333.60
Other miscellaneous charges and credits	6,175.03	6,265.81			5,266.70	2,185.12	7,674.63
Total expense	414,454.63	315,828.78			490,329.06	411,972.84	479,639.13
Net earnings	273,899.40	168,823.51			288,024.37	72,679.45	132,019.92

Italic figures denote decrease.

[Pages 32 to 33 omitted.]

## HOPE CASTORIN AND REFINING COMPANY

Butane Reporting at earnings at month for books and as adjusted years 1937, 1938, and 1939

Particulars	Per books			Examiners' adjustments			As adjusted		
	1937	1938	1939	1937	1938	1939	1937	1938	1939
<b>Sales:</b>									
Gallons sold	4,204,314	3,417,713	5,173,305						
Average price per gallon	\$0.0063	\$0.0066	\$0.0544						
Amount	\$291,475.91	\$193,383.08	\$281,647.78						
<b>Expenses:</b>									
Production expense:									
Contract gas	\$31,559.07	\$16,960.54	\$25,915.65	\$25,559.07	\$16,960.54	\$25,915.65	\$4,010.49	\$4,418.41	\$4,261.70
Labor	4,010.49	4,418.41	4,261.70				5,330.35	3,648.55	4,883.35
Other production expenses	5,330.35	3,648.55	4,883.35				9,360.84	8,066.96	9,145.05
Total direct production expense	32,919.91	25,027.50	35,060.70	25,559.07	16,960.54	25,915.65	3,568.76	2,649.93	2,995.31
Overhead	3,568.76	2,649.93	2,995.31				1,843.08	1,570.94	1,650.90
Taxes	1,843.08	1,570.94	1,650.90				11,699.47	41,826.46	11,873.71
Depreciation	12,170.89	12,333.84	12,372.54	471.42	507.38	501.83	17,111.91	16,047.33	16,528.92
Total indirect production expense	17,583.33	16,554.73	17,039.75	471.42	507.38	501.83	26,472.75	24,114.29	25,673.97
Total production expense	50,503.24	41,612.21	52,099.45	24,030.49	17,467.92	26,417.48			
Inventory fluctuation	5,979.86	919.27	2,625.51				2,979.86	502.27	2,625.51
Total cost of butane sold	47,523.38	41,900.94	49,465.94	24,030.49	17,467.92	26,417.48	23,492.89	23,812.02	23,048.46
Shipping, storage, and handling	34,990.92	26,481.61	30,533.32	24.82	26.68	29.33	34,526.10	26,454.33	30,000.99
Marketing expense	8,119.19	8,267.24	8,590.17				8,119.19	8,269.24	8,590.17
Administrative and general expense	8,111.17	6,628.73	9,562.63				8,411.17	6,629.73	9,562.63
Federal income tax	11,000.00		18,333.00				11,000.00		18,333.00
Other miscellaneous charges and credits	74.55	146.71	47.67	192.49	36.50	16	267.04	183.21	47.57
Total expense	109,689.21	82,849.63	113,937.69	24,862.82	17,488.10	26,443.65	81,826.39	65,148.53	89,484.04
Net earnings	181,786.70	110,540.45	168,729.09	23,802.82	17,488.10	26,443.65	205,649.52	128,034.56	192,163.74

Total figures denote decrease (Pages 35 to 45 omitted)

## HOPE CONSTRUCTION AND REFINING COMPANY

*Investment in currently active West Virginia plants Excluding Kennedy Plant and related reserve for depreciation Period 1914 to 1939, inclusive*

Year	Adjusted gas-line plant investment				Average depreciable balance	Computed reserve for depreciation			Balance Dec 31
	(a)	(b)	(c)	(d)		(e)	(f)	(g)	
1914		\$172,648.07	\$173,106.87	\$458.80	\$8,975.04	\$4,118.20	\$283.06	\$458.80	\$3,922.46
1915		5,737.42	5,813.79	772,571.70	191,911.80	5,254.58	4,764.18	8,975.04	11,107.43
1916		172,571.70	312,056.52	4,624.75	239,822.73	11,107.43	935.76	1,202.19	22,320.37
1917		612,056.52	32,107.52	700.00	332,103.53	22,320.37	375.00	700.00	36,120.28
1918		303,464.04	473,725.55	751,726.58	550,790.06	26,381.41	77,411.49	85,463.01	56,150.17
1919		751,726.58	161,335.52	905,024.44	821,078.26	39,429.65	5,252.25	8,037.66	92,994.39
1920		905,024.44	67,224.03	972,248.47	930,333.97	41,563.00	2,472.45	4,023.72	136,006.12
1921		968,224.75	33,339.37	947,496.36	957,164.78	45,808.90	10,700.72	17,320.70	174,905.04
1922		947,496.36	62,821.04	972,994.39	967,164.78	45,808.90	1,559.23	2,605.53	219,706.93
1923		978,220.20	252,758.56	2,605.53	1,143,479.65	47,978.35	2,934.36	4,412.96	266,266.08
1924		4,036,428.28	36,196.15	1,036,428.28	1,001,635.74	45,808.90	54,772.68	30,433.42	315,968.99
1925		1,208,733.42	33,339.37	1,208,733.42	1,143,479.65	47,978.35	1,810.13	4,377.26	373,939.25
1926		1,800,552.31	339,123.69	1,800,552.31	1,272,179.37	60,341.14	903.72	11,155.56	433,028.55
1927		1,619,520.44	36,023.23	1,619,520.44	1,272,179.37	60,341.14	815.64	1,997.16	500,690.28
1928		1,655,546.51	1,332.14	1,655,546.51	1,625,119.97	77,843.25	994.65	10,474.38	578,636.25
1929		1,646,839.99	96,611.48	1,643,839.99	1,637,279.75	78,425.70	10,483.31	13,171.15	636,092.14
1930		1,727,280.32	64,823.40	1,727,280.32	1,673,146.66	82,806.83	11,704.40	33,257.89	717,437.48
1931		1,758,875.85	27,809.17	1,758,875.85	1,700,694.57	83,115.34	18,515.21	30,304.76	708,733.27
1932		1,736,320.24	8,847.80	1,615,971.22	1,693,732.23	70,092.77	1,482.35	129,191.88	720,686.74
1933		1,615,971.22	3,239.83	1,615,971.22	1,907,692.25	73,936.71	4,710.55	8,970.78	793,096.64
1934		1,616,492.27	4,483.88	1,616,492.27	1,600,937.73	76,084.92	2,408.39	6,081.56	806,111.39
1935		1,528,948.15	7,845.82	1,528,948.15	1,504,291.79	74,737.98	12,162.08	91,967.71	891,013.74
1936		1,528,948.15	4,668.19	1,528,948.15	1,516,346.17	805,013.74	3,713.43	8,223.22	929,136.93
1937		1,473,046.56	3,079.58	1,473,046.56	1,480,307.77	929,136.93	24,039.43	51,436.22	973,057.98
1938		1,473,046.56	1,439,255.53	1,439,255.53	1,400,876.80	973,057.98	5,154.67	16,830.61	1,031,338.04
1939		1,439,255.53	1,254.81	1,429,952.34	1,441,623.94	1,031,338.04	12,814.53	28,088.98	1,085,281.08
Total		2,046,083.24	616,130.90	1,429,952.34	1,467,877.76	233,634.22	616,130.90		
		(Schedule B-1)	(Schedule B-1)	(Schedule B-1)		(Schedule B-1b)	(Schedule B-1)		

Italic figures denote decrease.

[Page 47 omitted.]

## HOPE CONSTRUCTION AND REFINING COMPANY

## Investment in Kennedy Gasoline Plant and Related Reserve for Depreciation—Period 1915 to 1939, Inclusive

Year	Investment				Cost of sites	Average depreciable balance	Computed reserve for depreciation			
	Balance Jan. 1	Additions	Retirements	Balance Dec. 31			Balance Jan. 1	Provision 1915-39	Net salvage	Retirements
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)
1915		\$830.30		\$830.30		\$415.15		\$17.27		
1916	\$830.30	90,222.48	\$11.00	91,041.78	\$286.00	45,783.04	\$17.27	1,304.99	\$4.40	\$11.00
1917	91,041.78	55,311.24	1,305.74	145,047.28	286.00	117,758.53	1,915.66	4,808.75	1,096.16	1,305.74
1918	145,047.28	35,812.84	1,595.93	179,264.19	1,000.00	161,212.74	6,904.83	6,706.45	1,977.74	1,595.93
1919	179,264.19	41,406.25	2,286.80	218,383.64	1,000.00	197,437.37	12,723.09	8,213.39	1,658.97	2,286.80
1920	218,383.64	6,095.28	8,300.54	204,383.73	286.00	210,634.14	20,308.56	8,763.21	5,518.08	8,300.54
1921	204,383.73	845.14	55.10	205,173.77	286.00	204,492.75	26,229.31	8,506.90	30.00	55.10
1922	205,173.77	4,281.51	122.88	209,332.70	286.00	205,997.23	34,711.11	8,009.84	54.03	122.88
1923	209,332.70	2,441.84		211,774.54	286.00	210,267.62	43,252.40	8,747.13		
1924	211,774.54	5,450.34	504.12	216,720.76	286.00	213,066.15	51,969.53	8,900.99	504.12	
1925	216,720.76	12,510.48		229,231.24	286.00	222,696.00	60,396.40	9,264.28		
1926	229,231.24	918.96	130.00	230,020.20	286.00	229,348.74	69,600.68	9,540.91	104.00	130.00
1927	230,020.20	747.97		230,768.17	286.00	230,117.21	79,175.59	9,572.88		
1928	230,768.17	1,006.20		231,774.37	286.00	230,994.30	88,748.47	9,609.36		
1929	231,774.37	619.08		232,393.45	286.00	231,806.94	98,357.83	9,643.17		
1930	232,393.45	15,097.31	3,472.71	244,022.08	286.00	237,928.78	108,001.00	9,807.84	2,443.07	3,472.71
1931	244,022.08	2,362.73		246,384.81	286.00	246,122.48	116,869.29	10,188.77		
1932	246,384.81	57.14		246,441.95	286.00	246,132.48	127,057.97	10,259.11		
1933	246,441.95	1,059.75		247,501.70	286.00	246,689.83	137,267.08	10,262.30		
1934	247,501.70	437.63	360.93	247,840.40	286.00	247,259.55	147,559.38	10,265.17	319.94	360.93
1935	247,840.40	5,133.05	2,014.39	250,663.06	286.00	248,817.73	157,764.56	10,350.92	43.40	2,014.39
1936	250,663.06	8,083.45	136.08	258,610.41	286.00	254,350.73	166,594.39	10,580.99	100.55	136.08
1937	258,610.41	718.68	1,723.46	256,605.63	286.00	257,322.02	177,139.85	10,704.60	843.69	1,723.46
1938	256,605.63	116.96		256,722.59	286.00	256,521.41	185,904.68	10,471.28		
1939	256,722.59	2,194.15	40.08	258,876.96		257,786.62	196,635.96	10,724.46	1.87	40.08
Total		282,035.21	24,128.55	258,876.96			216,804.86		13,675.00	23,158.55

Total Retirements deducted, decrease.



HOPE CONSTRUCTION AND REFINING COMPANY  
*Balance Investment and Related Reserve for Depreciation Period 1918 to 1939, Inclusive*

Schedule No. B-5

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Year	Balance Investment				Average de- preciable balance	Computed reserve for depreciation			
	Balance Jan. 1	Additions	Retirements	Balance Dec. 31		Balance Jan. 1	Provision 1.79%	Salvage	Retirements
	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
1918		\$1,942.44		\$1,942.44	\$971.22		\$46.52		
1919	\$1,942.44	3,807.31		5,809.75	3,891.09	\$46.52	180.38		
1920	5,809.75	32,465.89	\$254.94	38,050.70	21,945.22	232.90	1,051.18	\$433.95	\$254.94
1921	38,050.70	12,130.42		49,979.63	44,015.16	1,253.09	2,108.33	164.78	201.49
1922	49,979.63	5,220.26		55,199.89	52,589.76	3,304.71	2,519.05		
1923	55,199.89	15,757.64		70,937.53	63,068.71	5,823.76	3,020.99		
1924	70,937.53	14,261.37	267.87	84,931.03	77,934.28	8,844.75	3,733.05	280.00	267.87
1925	84,931.03	13,639.49	1,537.21	97,063.31	90,997.17	12,580.93	4,358.76	100.75	1,537.21
1926	97,063.31	14,341.51	931.48	110,473.34	103,798.33	15,062.23	4,970.50	718.87	931.48
1927	110,473.34	4,364.33	88.16	114,749.49	112,611.41	20,350.12	5,394.09	119.70	88.16
1928	114,749.49	25,143.27	117.63	140,010.39	127,379.44	25,783.73	6,101.48	200.09	117.63
1929	140,010.39	35,006.42	81.19	175,101.00	157,555.69	31,844.84	7,546.92	69.00	81.19
1930	175,101.00	49,457.73		224,552.73	199,826.87	39,375.95	9,571.71	457.50	48,947.99
1931	224,552.73	36,039.67	510.28	260,082.12	242,317.42	48,947.65	11,607.00	313.34	60,501.88
1932	260,082.12	6,248.64	313.34	266,017.42	263,049.77	60,501.88	12,600.08	275.00	73,063.62
1933	266,017.42	11,095.26	277.07	277,436.11	271,236.77	73,063.62	13,015.71	308.75	277.07
1934	277,436.11	2,239.52	326.48	279,340.15	278,388.13	86,111.01	13,334.79	315.28	326.48
1935	279,340.15	3,008.23	27,188.79	285,849.39	267,594.87	99,434.60	12,817.79	22,982.42	27,188.79
1936	285,849.39	898.73	2,127.31	287,621.01	255,235.36	108,046.02	12,434.00	1,400.83	2,127.31
1937	287,621.01	5,714.31	750.80	293,584.72	257,102.87	119,605.31	12,225.77	580.17	750.80
1938	293,584.72	731.96	113.74	294,292.94	259,893.83	131,759.91	12,448.91	91.48	113.74
1939	294,292.94	1,534.92	74.24	295,663.62	260,933.28	144,186.56	12,498.70	40.52	74.24
Total		296,425.02	34,761.40	291,663.62			163,472.54	27,940.00	34,761.40
									156,651.54

Italic figures denote decrease

## Summary of Gasoline and Butane Investment as of December 31, 1937, 1938, and 1939

	Gasoline Investment.				Butane investment considered	Other States	Total per books
	Other West Virginia plants	Kennedy plant	Total West Virginia	(c)	(f)	(g)	(h)
<b>(a)</b>							
<b>Year 1939</b>							
Investment, per books	\$1,566,830.30	\$170,726.82	\$1,737,557.12	\$261,693.02	\$1,669,220.74	\$526,504.65	\$2,525,815.39
Examiners' adjustments	736,877.96	88,149.84	48,788.12		48,788.12		
Investment, as adjusted	1,429,952.34	258,876.66	1,688,829.00	261,693.02	1,950,492.62		
Reserve for depreciation, per books	4,085,281.08	297,322.21	4,292,603.29	156,651.54	4,449,254.83		1,874,788.10
Reserve for depreciation, computed	344,671.26	51,554.45	306,225.71	105,012.08	501,237.79		651,027.29
Net investment, adjusted							
<b>Year 1938</b>							
Investment, per books	1,573,496.99		1,573,496.99	290,202.94	1,833,699.93		2,636,011.24
Examiners' adjustments	114,171.46		114,171.46		114,171.46		
Investment, as adjusted	1,459,265.53		1,459,265.53	290,202.94	1,719,498.47		
Reserve for depreciation, per books	1,031,358.04		1,031,358.04	144,186.56	1,175,544.60		1,879,505.35
Reserve for depreciation, computed	427,937.49		427,937.49	116,016.38	543,953.87		736,505.89
Net investment, adjusted							
<b>Year 1937</b>							
Investment, per books	1,587,218.02		1,587,218.02	259,584.72	1,846,802.74		2,473,907.90
Examiners' adjustments	114,171.46		114,171.46		114,171.46		
Investment, as adjusted	1,473,046.56		1,473,046.56	259,584.72	1,732,631.28		
Reserve for depreciation, per books	973,057.98		973,057.98	131,759.91	1,104,817.89		1,819,098.72
Reserve for depreciation, computed	499,988.58		499,988.58	127,824.81	627,813.39		654,809.38
Net investment, adjusted							

\* See Butane deduction decrease

## HOPE CONSTRUCTION AND REFINING COMPANY

## Average Net Investment in West Virginia Gasoline and Butane Property

Details from adjusted balances	West Virginia gasoline	Butane	Total
(a)	(b)	(c)	(d)
<b>Year 1937</b>			
Investment:			
Balance Jan. 1	\$1,528,570.97	\$254,621.01	\$1,783,191.98
Balance Dec. 31	1,473,046.56	259,584.72	1,732,631.28
Total	3,001,617.53	514,205.73	3,515,823.26
Average	1,500,808.76	257,102.87	1,757,911.63
Reserve for depreciation:			
Balance Jan. 1	929,120.93	119,905.31	1,048,742.24
Balance Dec. 31	973,057.98	131,759.91	1,104,817.89
Total	1,902,194.91	251,665.22	2,153,560.13
Average	951,097.45	125,682.61	1,076,780.06
Net investment	549,711.31	131,420.26	681,131.57
<b>Year 1938</b>			
Investment:			
Balance Jan. 1	1,473,046.56	259,584.72	1,732,631.28
Balance Dec. 31	1,409,884.03	260,202.94	1,730,086.97
Total	2,942,930.59	519,787.66	3,462,718.25
Average	1,471,465.29	259,893.83	1,731,359.12
Reserve for depreciation:			
Balance Jan. 1	973,057.98	131,759.91	1,104,817.89
Balance Dec. 31	1,031,358.04	144,186.56	1,175,544.60
Total	2,004,416.02	275,946.47	2,280,362.49
Average	1,002,208.01	137,973.23	1,140,181.24
Net investment	469,257.28	121,920.60	591,177.88
<b>Year 1939</b>			
Investment (including Kennedy plant):			
Balance Jan. 1	1,726,606.62	260,202.94	1,986,809.56
Balance Dec. 31	1,666,417.56	261,663.62	1,968,081.12
Total	3,423,024.12	521,866.56	3,944,890.68
Average	1,711,512.06	260,933.28	1,972,445.34

See footnote at end of table.

**Average Net Investment in West Virginia Gasoline and Butane Property—  
Continued**

Details from adjusted balances	West Virginia gasoline	Butane	Total
(a)	(b)	(c)	(d)
<i>Year 1959.<sup>1</sup></i>			
Reserve for depreciation (including Kennedy):			
Balance Jan. 1 .....	\$1,227,994.00	\$144,186.56	\$1,372,180.56
Balance Dec. 31 .....	1,292,003.29	156,651.54	1,448,654.83
Total .....	2,520,597.29	300,838.10	2,821,435.39
Average .....	1,260,298.64	150,419.05	1,410,717.69
Net investment .....	452,713.42	110,514.23	563,227.65

<sup>1</sup> Includes \$10,588.50 in gasoline investment for cost of sites carried on books in account No. 302-3—Other Lands, Leases, and Easements.

[Pages 52 to 64 omitted.]

1 EXHIBIT NO. 127. COMPARISON OF METHODS AND RESULTS OF COMMISSION STAFF'S RECOMMENDATION AND COMPANY'S WITNESSES' RECOMMENDATIONS FOR PROPER CREDIT ON ACCOUNT OF GASOLINE AND BUTANE EXTRACTION, F. P. C. WITNESS BLASE

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Reference	Year				Reference to 1940
	1937	1938	1939	1940	
Computed credit to Hope Natural Gas Company:					
Average gasoline and butane plant investment	\$1,757,911.63	\$1,731,359.12	\$1,973,945.31	\$1,955,798.13	Ex. 78, p. 31.
Average reserve or depreciation	1,076,790.06	1,401,181.24	1,410,717.09	1,473,029.02	Do.
Average net investment	681,131.57	591,177.98	563,227.65	482,729.11	Do.
Less: Kennedy plant net investment, per stipulation			55,829.54	46,532.13	Ex. 78, p. 32.
Balance of net investment	681,131.57	591,177.98	507,407.11	436,196.98	
Working capital	80,000.00	80,000.00	80,000.00	80,000.00	Ex. 78, p. 31.
Total West Virginia gasoline and butane net investment	761,131.57	671,177.98	587,407.11	516,196.98	
Return at 6% on above investment	45,667.89	40,270.67	35,244.43	30,971.82	
Gasoline and butane net earnings, adjusted	413,673.89	200,714.00	324,183.66	222,400.65	Ex. 78, p. 27, 28.
Less: Kennedy plant net earnings, per stipulation			51,126.82	13,834.22	Ex. 78, p. 32.
Balance of West Virginia gasoline and butane earnings	413,673.89	200,714.00	273,056.84	218,566.43	
Excess of above earnings over 6% of net investment, recommended as proper credit to Hope Natural Gas Company, by Commission staff.	366,006.00	180,443.33	237,812.41	187,684.61	
Additional adjustments recommended on Hope Natural Gas Company books of account:					
Reversal of 1% royalty	106,637.85				Stipulation.
Reversal of vent gas charge (excess of vent gas over recorded amounts on books).	138,114.22	75,585.88	86,791.27	80,591.68	Ex. 78, p. 29.
		127,771.12	117,640.58	119,592.32	
Additional net adjustment over amount recorded on books					
Total adjustments (increase of credit to Hope Natural Gas Company over recorded credits).	32,508.39	52,187.24	30,876.31	39,000.66	
	400,514.39	212,630.57	268,688.72	226,685.27	

**EXHIBIT NO. 127.—COMPARISON OF METHODS AND RESULTS OF COMMISSION STAFF'S RECOMMENDATION  
AND COMPANY'S WITNESSES' RECOMMENDATIONS FOR PROPER CREDIT ON ACCOUNT OF GASOLINE  
AND BUTANE EXTRACTION, F. P. C. WITNESS BLEASE—Continued**

	Reference	Year				Reference to 1940
		1937	1938	1939	1940	
Recorded credits on Hope Natural Gas Company's books: Difference between vent gas charge and fuel expense	Ex. 63, p. 33 Ex. 63, p. 6	\$4,280.10	\$2,196.70	\$4,403.67	\$6,000.30	Ex. 78, p. 41.
Royalty received, $\frac{1}{4}$ of net sales	Ex. 63, p. 19	105,635.83	75,583.88	86,764.27	86,591.66	Stipulation.
Total recorded credit		109,921.93	77,780.48	91,167.94	86,591.96	
Total credit recommended by commission examiners (sum of adjustments plus booked credits):		510,436.32	264,411.65	359,856.66	313,277.23	
Company witness, George I. Rhodes' adjustment to $\frac{1}{4}$ of net sales of gasoline and butane as proper royalty.	Ex. 37, p. 21, 28, 37	105,635.83	75,583.88	86,764.27	86,591.66	Computed here, not shown in Ex. 37 or 1940.
Recorded credits (as above)		109,921.93	77,780.48	91,167.94	86,591.96	
Total credit recommended by Rhodes		215,557.76	153,364.96	177,932.21	167,183.62	
Difference (commission staff over Rhodes)		294,878.56	137,046.69	181,924.45	146,093.61	
Vent gas returned not adjusted by Rhodes	Ex. 63, p. 19	138,144.22	127,771.12	117,640.58	119,592.32	
Net difference (commission staff over Rhodes)		156,734.34	9,275.57	64,283.87	26,501.29	

Italic figures denote decrease.

4 EXHIBIT NO. 82.—RATE OF RETURN, VOLUME I, F. P. C.  
WITNESS KNAPP!

WRITTEN STATEMENT

*Introduction.*

I have been instructed to prepare an exhibit setting forth the more important facts relative to general economic and financial conditions which should be considered in arriving at a fair and reasonable rate of return for Hope Natural Gas Company.

*Definition of "Rate of Return."*

The "return" received by a public utility consists of the amount of revenue remaining after deduction of necessary and reasonable operating expenses, rents, taxes, and depreciation and amortization accruals, but before provision for interest, dividends, or additions to corporate surplus. This "return" is ordinarily conceived of as the product of a "rate base" times a given "rate of return." Conversely, the "rate of return" may be defined as that percentage rate which, when applied to the rate base, will yield the total, over-all return for the particular utility.

*Statement of Principles.*

It is generally conceded that the basic principles to be considered in determining the reasonableness of a particular rate of return were stated by the Supreme Court in the general rule laid down in the Bluefield decision as follows:

5 "What annual rate will constitute just compensation depends upon many circumstances and must be determined by the exercise of a fair and enlightened judgment, having regard to all relevant facts. A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no right to profits such as are realized or

<sup>1</sup>Pages 1 to 3 and Appendix pages 1 to 51 omitted.



anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties. A rate of return may be reasonable at one time and become too high or too low by changes affecting opportunities for investment, the money market and business conditions generally.

Another fundamental principle was stated by the Supreme Court in *United Railways v. West* in the following words: "What will constitute a fair return in a given case is not capable of exact mathematical demonstration."

Although other factors doubtless have been considered by various courts and commissions, the underlying principles to be considered in connection with the problem of rate of return are probably nearly all covered in the above citations from holdings of the Supreme Court.

#### *Method of Presentation of Data.*

Based on consideration of the underlying principles set forth above, I have made certain studies and have prepared this written statement, which constitutes Volume I of this exhibit, and  
6 have prepared or directed and supervised the preparation of certain charts and schedules which have been assembled in two bound volumes constituting Volumes II and III of this exhibit.

Volume II of this exhibit contains data on general interest rates and yields, utility interest rates and yields, and recent financing, general economic conditions, comparative stability of earnings of public utilities and other forms of enterprise, local conditions in the general area of ultimate consumption of natural gas supplied through the facilities of the company involved in the present proceedings, and data reflecting the present situation with respect to idle investment funds and the factors contributing thereto. Volume III of this exhibit contains general statistics pertaining to the natural gas industry and, in addition, presents facts concerning the ownership, issuance, prices and yields of securities of natural gas companies.

As above indicated, the data in Volumes II and III of this exhibit are presented through the medium of charts and schedules. In order to facilitate the reading of the charts, the charts

are accompanied by schedules which contain the data on which the charts are based. For example, where a schedule number appears on the same line as a chart number in the Table of Contents, the schedule and chart should be read in conjunction with one another. In certain instances a schedule number appears without a related chart number, in which case the schedule should be read alone.

#### STATEMENT ON VOLUME II OF EXHIBIT

From the Table of Contents of Volume II of this exhibit, it will be seen that the charts and schedules contained therein are arranged in several groups or sections. These sections, in the order of their appearance, are as follows:

1. General Interest Rates and Yields; which relates to yields on investments in bonds of domestic corporations and Treasury bonds, and interest rates on 4-6 months commercial paper and 60-90 day time loans.
2. Utility Interest Rates and Yields and Recent Financing; pertaining to interest rates and yields on utility securities and containing information on recent financing by public utilities in general and, in addition, data compiled separately covering new financing by electric utilities during the period from 1935 through February, 1941.
3. Economic Conditions; which gives a general picture of economic conditions both currently and for the period since 1920 as indicated by indexes of wholesale commodity prices, general business activity and, for the period since 1929, data on national income.
4. Comparative Risk; this section giving an indication of the relative risks of public utilities as compared with other forms of enterprise.
5. Local Conditions; containing data on rediscount rates of the various Federal Reserve Banks, and averages of rates charged customers by banks in principal cities of the country. This section also contains data comparing economic conditions throughout the Nation in recent years with those in the States of Ohio, Pennsylvania, and West Virginia, and contiguous territory.
6. Idle Money Factors; which relates to the present situation respecting the volume of idle investment funds and the factors contributing to the growth of such funds in recent years.

### *General Interest Rates and Yields.*

Moody's Investors Service publishes a considerable amount of financial data and its publications are accepted and relied upon generally for purposes such as are now being considered.

8 Chart 1 shows Moody's composite bond yield average based on 120 domestic corporation bonds which carry the four highest bond ratings assigned by Moody's publication. The chart also shows the average yield for the 30 bonds included in each of the four rating groups, namely: Aaa, Aa, A, and Baa. There are not always 120 bonds in Moody's compilation for reasons which will be explained below.

*Chart 1.*—Chart 1 reflects the range of bond yield averages since 1920. The composite average yield for all bonds included in the data had reached by the end of the 1936 the lowest level recorded since 1920, namely, 3.67%. After rising during 1937 and the early part of 1938 to 4.50% in April 1938, a decline took place which by August 1939 had carried the composite average down to the 1936 low point. The month of September 1939 witnessed a sharp rise resulting from the outbreak of war in Europe. The composite average moved from 3.67% to 3.95% in that month. Between September 1939 and the year-end, the average declined to the August level. Except for the rise which occurred in May 1940 following the invasion of the Low Countries, the year 1940 witnessed a continuous decline in the composite average, the yield reaching a record low point of 3.36% at the year-end. In February 1941 the yield rose slightly to 3.40% and stood at 3.39% in March and was 3.40% on April 18, 1941, the latter two figures not being shown on the chart.

Since Chart 1 shows the individual rating group averages from which the composite average is derived, it can be seen that by December 1940 the average yields for bonds of Aaa, Aa, and A rating, after advancing about 0.10% in May and June, had also declined to record low levels, these being considerably  
9 lower than the levels established in 1936. For example the low points in 1936 as compared with the yields shown for December 1940, are as follows: Aaa bonds, 1936, 3.10%, December 1940, 2.71%; Aa bonds, 1936, 3.28%, December 1940, 2.92%; A bonds, 1936, 3.78%, December 1940, 3.36%. The first two months of 1941 witnessed moderate rises in yields on Aaa and Aa bonds, continuing into March and April, the yield on April 18, 1941 being 2.83% on Aaa bonds and 3.03% on Aa bonds, with little change occurring in yield on A bonds.

The risk factor associated with bonds of Baa rating is reflected by the more pronounced rise in the average yield on such bonds commencing in the latter part of 1937 and culminating in the early part of 1938 than was the case with respect to bonds of higher rating. The 1936 low point for Baa bonds was 4.52%, the yield subsequently rising to 5.16% in September 1937 and to 6.47% in April 1938. The yield declined rapidly during the remainder of 1938 to 5.27% in December 1938. During 1939 the average yield on Baa bonds declined still further but in December 1939, at 4.92%, was still 0.40% above the 1936 low point, in contrast with the experience of bonds of higher grade. The average yield on Baa bonds continued to decline during the first four months of 1940, but in May increased sharply by 0.20% and in June advanced 0.17%, resulting in a rise of 0.37% over the April average. This rise compares with that of about 0.10% in the average yield for the higher grade bonds in the same two-months period. From June to December 1940 the Baa average yield reflected a much more substantial decline than was recorded for higher grade bonds with the result that the December average of 4.45% was 0.07% below the 1936 low point, a decline of 0.47% from the average for December 1939. In January 1941 the Baa average declined still further to 4.38% and, following a slight increase in February, stood at 4.31% on April 4 and 4.35% on April 18, 1941. The latter figure is 0.10% lower than that for December 1940 in contrast with the moderate increase in 1941 above noted with respect to yields on Aaa and Aa bonds.

Inspection of Chart 1 will reveal the virtual collapse of the bond market which occurred in 1931 and the continuation of an extreme degree of weakness thereafter for the greater part of three years. In this period bonds most severely affected were those regarded as subject to greater investor risk. It will be observed, for example, that while the yields for Baa and A bonds reached 11.63% and 8.5%, respectively, in this period, the highest yield recorded for Aa bonds was 6.60% and for Aaa bonds was only 5.41%.

The data upon which Chart 1 is based appear in Schedule 1 which will be found immediately following the chart. Page 1 of Schedule 1 contains the composite monthly and annual average yields for each year commencing with the year 1920 on 120 domestic corporation bonds, including bonds of the four highest Moody bond rating groups, namely: Aaa, Aa, A, and Baa. Simi-

larly, Page 2 contains the average yield on bonds of Aaa rating, Page 3 on bonds of Aa rating, Page 4 on bonds of A rating and Page 5 on bonds of Baa rating. Each rating group includes, so far as they are available for inclusion, 30 domestic corporation bonds. A footnote on Page 5 indicates the source from which the data were taken. The lines on the chart can be readily associated with the data contained in the schedule. For example, Page 3 of Schedule 1 shows that the yield on 11 30 domestic corporation bonds of Aa rating was 3.00% in February 1941, as reflected on Chart 1.

Page 6 of Schedule 1 describes the mathematical basis of the yield computations. Monthly yield averages are unweighted arithmetic averages of daily yields computed on the basis of closing prices and calculated to maturity dates. For each rating group the average is based on the bonds included in that group and the composite average is the average of the four rating group averages. Commencing on Page 6 and continuing on Page 7 of Schedule 1 will be found the key to Moody's bond ratings. For example, bonds of Aaa rating are those judged as representing bonds of the best quality, generally referred to as "gilt edge" because they carry the smallest degree of investment risk. Such bonds are characterized by security of principal, and interest payments thereon are protected by large or exceptionally stable margins, changes in which are most unlikely to impair the fundamentally strong position of such issues. Bonds of Aa rating rank high but lack one characteristic or another of the highest type of bond investment. Together with the Aaa group they comprise what are generally known as high-grade bonds. Bonds carrying the A rating possess many favorable investment attributes and are to be considered as higher medium grade obligations. Baa bonds are those considered as lower medium grade obligations, i. e., they are neither highly protected nor poorly secured; such bonds, besides lacking outstanding investment characteristics, in fact exhibit speculative characteristics as well.

Pages 8 to 11, inclusive, of Schedule 1 contain lists of the bonds currently used in Moody's bond yield averages according to rating groups. Aaa bonds, grouped according to classification as Industrials, Railroads, and Public Utilities, are listed on Page 8. Aa bonds are similarly listed on Page 9. A bonds on Page 10 and Baa bonds on Page 11. It will be noted that the lists of Industrial Aaa, Aa and A bonds contain fewer than ten bonds, there being only four bonds in the Aaa group, three in the Aa group, and nine in the A group. Similarly, there



are only five Railroad bonds in the Aaa group and eight in the Aa group. Moody's explanation, as given on Page 6 of Schedule 1, is that it has not been possible since 1933 to find a sufficient number of representative bonds for these rating groups. However, as previously indicated, the averages for these groups are given equal weighting in combining them with other group averages.

*Chart 2.*—The purpose of the next two charts is to show that the trend of bond yields is not an isolated phenomenon but is part of the movement of interest rates in general, as indicated by the broadly similar patterns observed in the trend of interest rates on 4-6 months commercial paper and on 60-90 day time loans, as well as in the yields on U. S. Treasury bonds. In other words, the purpose of these two charts is merely to furnish added data regarding the movement of interest rates as such, and not to offer short-term money rates or yields on Treasury Bonds as a measure of a proper rate of return.

Chart 2 shows interest rates on 4-6 months commercial paper and 60-90 day time loans and is based on averages computed by Standard Statistics Company from data appearing in the Commercial and Financial Chronicle. The 4-6 months paper is issued by such seasonal borrowers as Armour's and Swift's and is sold to banks through dealers. The 60-90 day time loans represent bank loans to New York Stock Exchange brokers and are secured by mixed collateral. Although the 4-6 months paper, contrary to expectation, currently carries a lower rate than the shorter-term time loans, there are two factors which may be assumed to effect a higher rate for 60-90 day loans than for 4-6 months paper. These are, first, that the rate for 60-90 day loans is assumed to be more or less fixed by agreement between banks and, second, that a service charge element is presumed to exist by reason of the allowance of substitutions of collateral in connection with brokers' loans.

Current interest rates on both types of loans are extremely low as compared with the levels existing during the period 1920 to 1929. For example, by reference to Schedule 2 it may be seen that the rate on 60-90 day time loans varied from 8.72% in 1920 to as low as 2.52% in 1924 and rose to 8.94% in 1929. The average for that ten-year period was 5.46%, as compared with 1.43% for the eleven years following 1929. The rate on 60-90 day time loans now stands at 1.25%, but for a brief period was 0.50% in 1932 and 0.25% in 1935.

On 4-6 months commercial paper, the average rate for the ten-year period 1920-1929 was 5.01%, while since 1929 the rate has averaged 1.54%. The rate on this type of paper remained unchanged at 0.75% from November 1938 through January 1940, but in March 1940 declined to 0.63%. Since the latter date the rate has remained unchanged.

*Chart 3.*—Chart 3 shows the yield on U. S. Treasury Bonds due or callable after twelve years, as computed by the U. S. Treasury

Department for the period since 1920. This chart portrays a somewhat similar situation as that shown on Charts 1 and 2, the trend being generally downward in recent years.

The low point for the period 1920-1937 was reached in February 1937 with a yield of 2.46%, as indicated in Schedule 3. Increasing by April 1937 to 2.80%, the yield subsequently declined, reaching a new low of 2.13% in June 1939. In September 1939, as in the case of domestic corporation bonds, the yield on U. S. Treasury Bonds rose to the highest level of the year, 2.65%, but subsequently declined and for the month of December 1939 was 2.35%. The decline continued in 1940 and in March and April the yield average 2.25%. An increase of 0.13% occurred in May 1940, in line with the increase previously noted for corporate bonds in the Aaa, Aa, and A groups, but subsequently this increase was more than cancelled, a decline of 0.50% taking place between June 1940 and the year-end when the yield stood at 1.89%, the lowest figure on record. An abrupt rise in yield occurred in January 1941, the last month shown on the chart. This rise continued, resulting in an average of 2.10% for the following month. However, in March the yield declined to 2.01% and for the week ended April 26, 1941, at 1.91%, was very close to the record low point of 1.89%.

Undoubtedly the lower yield reflected for Treasury bonds in comparison with Moody's average yield on corporation bonds of Aaa ratings may be attributed to the low risk associated with these securities and to the fact that income derived therefrom is in part exempt from taxation.

From the data presented in this section, it is apparent that bond yields and interest rates, generally, have reached the lowest levels witnessed in many years; in fact, they probably have not been lower at any time in the history of the country.

#### *Utility Interest Rates and Yields and Recent Financing.*

This section deals with the cost of money as indicated by bond yields, preferred stock yields, and common stock earnings-price ratios, with particular reference to public utilities.



**Chart 4.**—Chart 4 shows Moody's bond yield averages commencing with the year 1934, based on 40 public utility bonds according to Moody's bond ratings. Comparison of Chart 4 with Chart 1 reveals that yields on public utility bonds have followed the same generally downward trend in recent years reflected by yields on 120 domestic corporation bonds (Industrials, Railroads, and Public Utilities). It will also be observed that public utility bond yields were at the lowest levels on record at the close of 1940.

It is of interest to note from inspection of the annual averages shown on Pages 1 and 2 of Schedule 4, which immediately follows Chart 4, that the average yield on public utility bonds in each rating group declined substantially between 1934 and 1940, the comparative yields and declines being as follows:

Rating	1934 average	1940 average	Decline since 1934
	Percent	Percent	Percent
Aaa.....	3.92	2.77	1.15
Aa.....	4.66	2.92	1.74
A.....	5.55	3.24	2.31
Baa.....	7.49	4.05	3.44

Relatively, these declines range from 29.3% for Aaa bonds to 45.9% for Baa bonds, indicating that investors in public utility bonds have more recently been willing to accept a relatively lower rate of compensation than in 1934 in proportion to the degree of risk assumed.

16 Another method of measuring the willingness of investors in public utility bonds to accept relatively less compensation in proportion to the degree of risk assumed is to compare the ratio of the yield on Baa bonds to that on Aaa bonds. Such ratios computed for the years 1934 to 1940, inclusive, and for the month of February 1941 are as follows:

Period	Baa yield	Aaa yield	Ratio of Baa to Aaa yield
	Percent	Percent	Percent
Year 1934.....	7.49	3.92	1.91
Year 1935.....	5.56	3.52	1.58
Year 1936.....	4.67	3.21	1.45
Year 1937.....	5.09	3.21	1.59
Year 1938.....	5.26	3.03	1.74
Year 1939.....	4.50	2.88	1.56
Year 1940.....	4.05	2.77	1.46
Feb. 1941.....	3.90	2.70	1.41

From the foregoing, it appears that in 1934 the yield demanded by investors on Baa bonds was 1.91 times that required on Aaa bonds. The ratio declined to 1.45 in 1936, increased to 1.74 in 1938, and dropped back to 1.56 in 1939. In 1940 the ratio stood at 1.46 and in February 1941 was 1.41, or somewhat below the previous low level for the period established in 1936.

The 1941 curves on Chart 4 reflect increases in yields on all classes of public utility bonds in January and February; such increases being particularly noticeable with respect to bonds in the two lower rating groups, namely, A and Baa. However, figures for March and April 1941, not shown on the chart, indicate that such increases have not continued, the yields on April 4, 10, and 18, 1941, compared with those for the month of February, being as follows:

17.	Rating	Month of February	Apr. 4, 1941	Apr. 10, 1941	Apr. 18, 1941
		Percent	Percent	Percent	Percent
	Aaa.....	2.76	2.75	2.76	2.75
	Aa.....	2.88	2.90	2.91	2.86
	A.....	3.20	3.15	3.15	3.13
	Baa.....	3.90	3.86	3.88	3.80

*Chart 5.*—Chart 5 shows Moody's bond yield averages for the period since 1920 based on 120 domestic corporation bonds representative of three industry groups, namely: Railroads, Public Utilities, and Industrials. The general trends reflected in this chart are similar to those described in connection with the previous charts. Starting from the low point for all groups reached in 1936, the average yields increased until midyear of 1938. The rise in yield for railroad bonds in this period was much more abrupt than in the case of public utilities and industrials and carried the yield on railroad bonds to 5.75%, public utility yields increasing only to 4.11% and industrials to 3.55%. From these points the trend toward lower yields has continued with minor interruptions for all groups, but only in the case of public utilities and industrials have the yields established new low levels. For example, the August 1939 figures were 3.40% (1936—3.69%) for public utilities and 3.24% (1936—3.37%) for industrials. Railroad yields in August averaged 4.41%, which was still considerably higher than the 3.95% yield recorded for January 1937, reflecting the greater degree of risk attaching to railroad securities from the viewpoint of investors. The rise in yields which oc

carred in September 1939 had been cancelled before the year-end, and subsequently through April 1940 all yields registered further declines, public utility and industrial bond yields falling to the then lowest levels on record, while railroad bond yields still remained 0.38% above the January 1937 low point.

In May and June, following the invasion of the Low Countries, an abrupt rise in yields of all bonds occurred, but this rise was subsequently cancelled, railroad bond yields declining through January 1941 to 3.96%, or within a fraction of the lowest level recorded since 1920, while public utility and industrial bond yields had receded to all-time lows at the close of 1940. The December 1940 averages, as shown in Schedule 5, Pages 1, 2, and 3, were as follows: Industrials 2.93%; Public Utilities 3.13%; and Railroads 4.03% (January 1941, 3.96%). The most recent yields available at the present writing, those of April 18, 1941, show moderate changes compared with year-end averages, as follows: Industrials 3.06%; Public Utilities 3.16%; and Railroads 3.97%.

By inspection of the annual averages shown on Page 2 of Schedule 5, it will be seen that the average yield on 40 public utility bonds declined from 6.39% in 1932 to 4.43% in 1935, and leveled off at approximately 3.90% during the years 1936, 1937, and 1938. In 1939 the average was lower, at 3.48%, than for any year since 1920, while the average for 1940, 3.25%, was well below that for 1939.

Chart 5 indicates that since 1933 the experience of the industrial group has been somewhat more favorable than that of the public utility group, but this is probably due in part to the limited number of industrial bond issues available for inclusion in the two highest Moody bond rating groups.

*Chart 6.*—Chart 6 shows annually, for the period since 1921, Moody's weighted averages of yields on newly issued domestic bonds of industrials, railroads, and utilities. The averages shown are based on yields on newly issued bonds, calculated to maturity and weighted by the amounts of all new issues floated in any given classification or period. The classification "utility bonds," which includes bonds of light, power, and gas utilities, consists wholly of operating companies. The yields indicated in Chart 6 are not, of course, representative of bonds of the same companies or issues at any one date or during any given period.

The chart shows a generally downward trend since 1921 for all classes of companies in yields on newly issued bonds. The trend was interrupted in 1929 and 1932, but commencing in 1933 and continuing until about 1936 the downward trend was greatly accelerated. In 1937 and 1938 the yields leveled off somewhat, but in 1939 a substantial decline occurred, particularly in yields on new railroad and industrial bond issues. The 1939 decline in yield on newly issued light, power, and gas utility bonds was fractional, but nevertheless brought that yield also to the lowest point reached throughout the entire period since 1921. There has been superimposed on Chart 6 from Schedule 10 the average yield on newly issued bonds of electric operating utilities beginning with the year 1935, which shows a somewhat more favorable market for bonds of electric operating utilities than those of light, power, and gas utilities combined.

The chart indicates that from 1921 through 1932 the market for new utility bonds appears to have been somewhat less favorable than for railroad bonds. In 1933, however, this position was reversed and except in the years 1937 and 1938, utility bonds were marketed from 1933 through 1939 on more favorable terms than railroad bonds. It also appears that from 1921 through 1938 the market for new utility bond issues was consistently more favorable than for industrial issues. A reversal of this situation occurred in 1939 when the average yield on new utility bond issues was 3.45%, as compared with 3.09% on new industrial issues. In this connection, however, attention is directed to Page 1 of Schedule 10 where it is indicated that in 1939 a substantially larger proportion of electric operating utility bond issues consisted of lower medium grade bonds of Baa rating than was the case in prior years, which would appear to account, at least in part, for the failure of the yield on new utility bond issues to follow the yield on industrial issues in that year.

The rapid decline in the yield on newly issued domestic bonds, particularly noticeable since 1934, suggested that the decline could be attributed not only to the course of the bond market itself but also to the quality of the offerings. This assumption is confirmed by comparison of the average yield for newly issued utility bonds with the average yield on utility bonds then outstanding of the three highest Moody bond rating groups, i.e., Aaa, Aa, and A. The line superimposed on Chart 6, showing the average annual yield from 1934 to 1939 on 39 utility bonds carrying these Moody ratings, very closely conforms to that showing the

yield on newly issued utility bonds, except in 1939 for the reason above noted, and indicates that a very large proportion of the utility bonds offered during that period consisted of higher grade bonds.

Before proceeding to a discussion of Schedule 7 and subsequent schedules which contain certain data with respect to yields on securities of electric operating utilities, it would be desirable to point out that such data are not intended to serve as criteria of market conditions directly affecting the securities of natural gas companies; nevertheless, because of the prominent position of both the natural gas and electric utility industries as important components of the nation's public utility industry and because both industries have exhibited a marked rapidity of growth in recent years, it is believed that the presentation of data with respect to yields on securities of electric operating utilities will afford a perspective which will be of assistance in connection with a study of yields on securities of natural gas companies.

The following data with respect to the natural gas and electric utility industries, derived respectively, from "Annual Statistics of the Natural Gas Industry in 1939, Statistical Bulletin No. 41, October, 1940," issued by the American Gas Association, and "The Electric Light and Power Industry in the United States, Year 1939, Publication No. H 2, March 1940," issued by the Edison Electric Institute, clearly demonstrate the magnitude of the growth experienced by both industries since 1929:

#### NATURAL GAS INDUSTRY

Particulars	Year 1939	Year 1929	Increase since 1929	
			Amount	Percent
Number of customers .....	7,454,000	5,896,000	1,558,000	26.4
M. C. F. sales <sup>1</sup> .....	1,328,243	991,036	337,207	34.0
Revenues <sup>1</sup> .....	\$445,850	\$376,250	\$72,600	19.3

#### ELECTRIC UTILITY INDUSTRY

Number of customers .....	29,104,185	24,150,183	4,954,002	20.5
Kwh. sales <sup>1</sup> .....	106,080,983	75,294,467	30,792,516	40.9
Revenues <sup>1</sup> .....	\$2,203,644	\$1,938,520	\$355,124	18.3

<sup>1</sup> Thousands (000) omitted.

It may also be noted that the two industries exhibit a certain similarity in the proportion of revenues derived

from domestic and commercial customers on the one hand and from industrial customers on the other, as indicated in the following comparison of revenues from sales to customers in 1939 by customer groups:

## NATURAL GAS INDUSTRY

Particulars	Domestic	Commercial	Industrial	Total
Revenues <sup>1</sup>	\$255,805	\$50,362	\$142,692	\$448,859
Percent of total	57.0%	11.2%	31.8%	100.0%

## ELECTRIC UTILITY INDUSTRY

Particulars	Domestic	Commercial	Industrial	Total
Revenues <sup>1</sup>	\$880,584	\$647,671	\$756,389	\$2,284,644
Percent of total	38.8%	28.2%	33.0%	100.0%

<sup>1</sup> Thousands (000) omitted.

<sup>2</sup> Includes house heating.

<sup>3</sup> Includes gas sold to electric utilities but excludes gas sold in the field and to carbon black manufacturers.

<sup>4</sup> Includes farm customers.

<sup>5</sup> Small light and power.

<sup>6</sup> Large light and power and all other.

The above summary discloses that approximately one-third of all operating revenues of both the natural gas and electric utility industries is derived from industrial customers, the remaining two-thirds representing revenues from domestic and commercial customers. In the latter category, however, it will be noted that 57% of natural gas revenues are derived from domestic (including house heating) customers, as compared with 38.8% in the case of electric revenues, the proportion of revenues from commercial customers being 11.2% for the natural gas industry and 28.2% for the electric utility industry.

*Schedule 7.*—This schedule reflects annual yields on a group of electric operating utility preferred stocks during the period of twelve years from 1920 to 1940, inclusive, based on averages of yearly high and low market quotations. The 16 issues included in this exhibit comprise all electric operating utility preferred stocks shown in Schedule 19 of a Federal Communications Commission publication issued June 15, 1938, for which preferred dividends and prior requirements were earned in excess of 1.50 times in 1938, and for which market quotations for each year in the period 1929-1940 were available. The title of the publication referred to is "The Problem of the Rate of Return in Public Utility Regulation".



Schedule 7 reflects an upward trend through 1933 in yields demanded by investors on preferred stocks, and a downward trend in the years 1934, 1935 and 1936. After 1936 investors' demands fluctuated within a narrow range at approximately the 1936 level. Expressed in terms of an index based on the 1929 average of the yields on the 16 preferred stocks as equal to 100%, the average yield advanced to 106 in 1931, to 117 in 1932, and to 140 in 1933. The average declined to 125 in 1934 and to 103 in 1935. The average in 1936 was about 15 points lower at 88 and, with minor fluctuations in the years 1937, 1938 and 1939, stood at 85.5 in 1940.

Expressed in terms of percent yield, the unweighted arithmetic average yield on the 16 preferred stocks increased from 5.74% to 8.04% between 1929 and 1933, declined to 5.10% between 1933 and 1936, and was 5.19% for 1937, 5.27% for 1938, 4.96% for 1939 and 4.91% for 1940.

*Schedule 7-A.*—This schedule reflects yields on electric operating utility preferred stocks and number of times preferred dividends and prior requirements are earned based on averages of high and low market quotations for the first two months of 1941, with earnings coverage based on income for the latest twelve months for which reported. Schedule 7-A contains a list of 21 preferred stocks and, as indicated in the footnote, includes all presently outstanding electric operating utility preferred stocks shown in Schedule 19 of the previously mentioned publication of the Federal Communications Commission, for which preferred dividends and prior requirements were earned in excess of 1.50 times in 1938.

Examination of this schedule will show that of the 21 preferred stocks listed, three issues were selling to yield from 3.81% to 4.00% to investors, two issues to yield between 4.00% and 4.25%, six issues to yield between 4.25% and 4.50%, three issues to yield from 4.50% to 5.00%, four issues to yield between 5.00% and 5.50%, and three issues to yield 5.66%, 6.05% and 6.07%, respectively. In no instance did any issue sell on a basis to yield in excess of 6.07%. Eleven of the twenty-one issues reflected yields of 4.50% or lower on the basis indicated. With respect to nine of these eleven issues, preferred dividends and prior requirements were earned 2.20 times or more, and with respect to six of the ten issues yielding in excess of 4.50% such requirements were earned less than two times.

The unweighted arithmetic average of yields on the 21 preferred stock issues shown in Schedule 7-A is 4.72%, as compared with the 1940 average of 4.91% for the 16 issues shown in Schedule



7. The two-months' average of 4.81% for the 16 issues in Schedule 7 which are also included in Schedule 7-A reflects a continuation in 1941 of a downward tendency in electric operating utility preferred stock yields.

25 *Schedule 8.*—This schedule reflects annual earnings-price ratios, that is, the percent of net earnings per share to market price, on a group of electric operating utility common stocks during the period of twelve years from 1929 to 1940, inclusive, based on averages of yearly high and low market quotations and published annual earnings per share of common stock. The issues included in the exhibit comprise all electric operating utility common stocks shown in Schedule 26 of the previously mentioned publication of the Federal Communications Commission issued June 15, 1938. The stocks listed from such publication include only those common stocks which are held by the public to the extent of at least 5 percent of the number of shares outstanding.

Schedule 8 reveals that, on the average, from 1929 through 1932 there was an upward trend in common stock earnings-price ratios on these common stocks. In other words, during this period, investors demanded that increasing earnings be available for common stock per dollar of market price. In terms of an unweighted arithmetic average, the average earnings-price ratio for the group of 14 common stocks was 4.06% in 1929, and increased in the three succeeding years, rising to 4.59% in 1930, to 5.95% in 1931, and to 7.74% in 1932, the latter ratio being the highest reflected in any year during the twelve-year period.

In 1933, investors' demands abated somewhat, the average earnings-price ratio declining to 7.02%. In 1934 the ratio rose to 7.57%, but declined to 7.32% in 1935, and to 5.89% in 1936. In 1937 and 1938 the ratio advanced to 6.77% and 7.42%, respectively, but declined to 7.04% in 1939. The ratio rose 0.26% to 7.30% in 1940.

26 It will be observed that during the twelve-year period the average did not exceed eight percent in any year.

Aside from the two years 1929 and 1930 in which the average was less than five percent, there were two years in which the average was less than six percent; one year, 1937, in which it was 6.77%; and seven years in which the average was above seven percent. The highest average, as above stated, was 7.74% in 1932.

*Schedule 8-A.*—This schedule reflects earnings-price ratios of 14 electric operating utility common stocks and the percent of gross income available for common stock based on averages of

high and low market quotations for the first two months of 1941, and on earnings per share for the twelve months ended December 31, 1940. The common stocks listed in Schedule 8-A are the same issues for which earnings-price ratios for the period 1929-1940 are presented in Schedule 8.

Inspection of data contained in this schedule will show that the earnings-price ratios of the 14 common stocks listed were as follows: one at 5.34%; three from 6.00% to 7.00%; five from 7.00% to 8.00%; two at slightly over 8.50%; one at 9.69%; one at 9.83%; and one at 10.14%. Nine of the fourteen issues reflected earnings-price ratios of 8.00% or less on the basis indicated. It will be noted that for three of the five issues selling on a basis in excess of 8.00% the proportion of gross income available for common stock falls below 50%.

The unweighted arithmetic average of the earnings-price ratios of the fourteen common stock issues shown in Schedule 8-A is 7.88%, as compared with the 1929 average of 7.04% and the 1940 average of 7.30% for the same issues shown in Schedule 8. It will be noted that the 1941 average of 7.88% is 0.14% higher than the highest average (7.74% in 1932) reflected for the period 1929-1940.

*Schedule 9.*—Schedule 9 presents annual information on the volume of all corporate financing in the United States since 1934, and the portion thereof representing financing by public utilities, as compiled by The Commercial & Financial Chronicle. The total volume of financing in each year is segregated to show the portions representing new capital and refunding issues, and subdivisions of the amounts representing new capital, refunding and total corporate financing disclose the proportionate amounts of long-term bonds and notes, short-term bonds and notes, preferred stock and common stock issues comprising the total, both for all corporate issues in the United States and for the portion thereof representing security issues of public utilities.

The total amount of new corporate issues in the United States 1934 was 491 million dollars, in 1935—2,267 millions, in 1936—3,332 millions, in 1937—2,434 millions, in 1938—2,140 millions, in 1939—2,196 millions, in 1940—2,721 millions, and in the first 6 months of 1941—587 millions, the total for the entire period being 17,468 millions. Of this total, 8,539 millions, or 48.9%, represented financing by public utilities. By years the proportions of all public utility security issues to all corporate issues

in the United States were as follows: 1934—32.3%, 1935—56.6%, 1936—45.9%, 1937—34.0%, 1938—57.1%, 1939—60.4%, 1940—46.4%, and 1941 through February—56.4%.

In this connection, attention is directed to Note 3 on Page 4 of Schedule 9 which indicates that The Commercial and Financial Chronicle, which is the source of the above data on corporate financing, does not classify nonretailing producers of natural gas and natural gas pipe-line companies as public utilities. Securities issued by such natural gas companies are reported by that publication under the heading "Miscellaneous." However, it is noted that the common stock issue of Southern Natural Gas Company offered to stockholders in January 1941 was classified by the above publication as a public utility issue, although that company is not engaged in the retail distribution of natural gas. The amount of the offering, exclusive of shares subscribed by Federal Water Service Corporation, parent company, was \$2,310,070 (reflected under "New Capital" on Page 6 of Schedule 9).

The proportion of the total amount of all corporate financing during the period from 1934 through February 1941 represented by new capital was 29.1%. New Capital accounted for 12.0% of all public utility financing and 45.5% of all nonutility financing during the same period. By new capital, in this connection, is meant capital obtained for the purpose of additions to plant and property or to increase working capital. By refunding is meant the issuance of new securities for the purpose of retiring existing obligations at or before maturity, or of affecting reductions in dividend rates on preferred stocks.

New capital raised by corporations in the United States during the period from 1934 through February 1941 aggregated 5,087 million dollars of which public utility issues accounted for 1,028 millions, or 20.2%. of the 1,028 millions of new capital raised by public utilities, 94.7% was represented by bonds and notes, 4.2% by preferred stocks, and 1.1% by common stocks, whereas the corresponding percentages of new capital raised by all nonutility corporations in the United States were as follows: for bonds and notes—72.1%; for preferred stock—11.4%; and for common stocks—16.5%.

The total amount of all corporate issues for refunding purposes during the same period was 12,381 million dollars, of which public utility issues accounted for 7,511 millions, or 60.7%. This clearly demonstrates that public utilities have taken advantage of

the favorable market in recent years to conduct large-scale re-funding operations.

Public utility financing during the period since 1934 accounted for the following proportions of all corporate issues: long-term bonds and notes, maturing later than five years from date of issue—7,869 millions, or 53.3% of all long-term corporate issues; short-term bonds and notes—160 millions, or 31.5% of all short-term corporate issues; preferred stocks—487 millions, or 35.0% of all preferred stock issues; and common stocks—23 millions, or 2.9% of all common stock issues. As previously stated, public utility issues of all kinds accounted for 48.9% of all corporate issues over the entire period under discussion. However, during the years 1938 and 1939 public utility financing accounted for very nearly 60% of all corporate financing in the United States and, although the proportion dropped to 46.4% in 1940, it rose to 56.4% in the first two months of 1941.

Analysis of the various types of securities issued by public utilities during the period covered by Schedule 9 reveals that there were no capital stock issues sold in 1934. Small amounts of preferred and common stock representing new capital were sold in 1935, approximately \$4,500,000 of preferred stock issues 30 representing new capital were sold in 1936, and approximately \$5,700,000 of preferred stock issues and \$700,000 of common stock issues representing new capital were sold in 1937. No common stock issues were sold in 1938 and the amount raised from the sale of common stock in 1939 was only \$300,000, although preferred stock issues for new capital amounting to approximately \$5,100,000 were sold in both years.

In contrast with this record, Schedule 9 reflects the sale by public utilities for new capital purposes of \$6,600,000 of common stock and \$21,300,000 of preferred stock in the year 1940, and \$2,300,000 of common stock and \$109,000 of preferred stock in the first two months of 1941. The combined total of such issues in 1940 and 1941 is somewhat in excess of the aggregate of all utility preferred and common stock issues for new capital purposes in the entire preceding six-year period.

*Schedule 10.*—This schedule contains a summary of all known electric operating utility bond issues, other than bonds and debentures having serial maturities, sold during the years 1935 to 1940, inclusive, and shows that during this period 327 such bond issues were sold aggregating in excess of five billion dollars. The sum-

mary on Page 1 is presented by years and discloses the following weighted average yields on newly issued electric operating utility bonds based on offering prices to purchasers: 1935—3.81%; 1936—3.48%, 1937—3.63%, 1938—3.43%, 1939—3.42%, and 1940—3.06%. The weighted average yield on all issues sold during the six-year period, irrespective of rating, was 3.47%.

Page 2 of Schedule 10 reflects average yields on the same bond issue classified according to ratings assigned by Moody's publications. It will be seen that issues aggregating 4.2 billions, or 78.5% of the principal amount of all issues sold during the six-year period, represented bonds of Aaa, Aa and A rating, and issues aggregating only 352 millions, or 6.5% of the total, represented bonds of Baa rating. It thus appears that the major portion of electric operating utility bonds issues sold in the period 1935-1940 consisted of high and medium higher grade bonds.

The summary on Page 2 of Schedule 10 also discloses that average yields to purchasers have declined since 1936. With respect to bonds carrying the four highest Moody's ratings, yields on issues sold in 1940 were lower than in any other year of the six-year period, such yields being as follows: Aaa—2.64%; Aa—2.80%; A—3.07%; and Baa—3.81%.

Of the 327 issues included in the summary for the six-year period, 98 were issues to which no rating was assigned by Moody's publications. The majority of such issues represent bonds which were privately sold. No rating is ordinarily assigned to bonds which are sold privately inasmuch as there is usually no trading in such issues.

*Schedule 10-A.*—This schedule contains certain details in connection with offerings of electric operating utility bond issues sold during the year 1940. Such offerings aggregated approximately \$800,000,000 in principal amount. The weighted average yield to purchasers of these issues was 3.06%. The schedule shows, for each issue, the name of the issuing company, month of offering, description of issue, principal amount of offering, price to public, and yield to maturity.

*Schedule 10-B.*—Schedule 10-B contains a list of all electric operating utility bond issues sold during the first two months of 1941, and presents similar information with respect to such issues as that described above in connection with Schedule 10-A. The aggregate principal amount of the issues sold in the two-months' period was \$157,991,000. There



were 10 issues sold during this period, including one Aaa issue sold in January on a 2.60% yield basis and two A issues sold to yield an average of 2.96%. Seven issues, to which no rating was assigned, were sold in this period, all of which were sold privately. The weighted average yield on all issues sold was 3.17%.

*Schedule 11.*—Schedule 11 presents a compilation of all known preferred stock issues of electric operating utility companies sold in the period 1935–1940, showing the cost of money to issuing companies and yields to purchasers. The average yield to purchasers of such issues was 4.38% for 1935, 4.62% for 1936, 4.63% for 1937, 4.85% for 1938, 4.99% for 1939, and 4.36% for 1940. Yields on individual issues in excess of \$1,000,000 ranged from 3.85% to 5.95%. For the entire period, the average yield on all issues sold was 4.58%.

Comparison with Schedule 10 indicates the relatively low proportion of preferred stock to bonds issued by electric utilities during the six-year period, new issues of bonds and preferred stock having been sold in proportion of about 23 to 1. However, it should not be inferred that such a relationship exists between outstanding bonds and preferred stocks in the capital structures of electric operating utilities. For example, in the volume entitled "Statistics of Electric Utilities in the United States—1939", published by the Federal Power Commission, it is shown on Page

X that for 383 Class A and Class B privately owned electric utilities, long-term debt constituted 51.8% of the total amount of securities outstanding as of December 31, 1939, while preferred stocks comprised as of December 31, 1939, 33. addition, common stocks accounted for 32.2% of the securities outstanding and the remainder, or 0.7%, consisted of premiums, assessments, etc., on capital stock.

Schedule 11 shows for each issue the net proceeds per share realized by the issuing company from the sale of preferred stock as well as the offering price per share to the public. In addition, it shows the percent relationship of annual dividends both to net proceeds and to price paid by public.

For example, a 4½% preferred stock issue of Appalachian Electric Power Company was sold in December 1940 at \$106 per share to yield 4.25% to purchasers. The company realized \$102.50 per share as the net proceeds from the sale after meeting all expenses of floating the issue, the dividend requirement of \$4.50 per share representing an annual cost to the company for preferred stock capital of 4.39% ( $\$4.50 \div \$102.50$ ). The expenses of

floating the issue therefore resulted in increasing the annual preferred stock expense of the company over the annual yield to purchasers by 0.14%. Stated another way, the yield to purchasers, 4.25%, plus cost of flotation, 0.14%, equals the annual cost to the company for preferred stock capital, 4.39%.

Inspection of Schedule 11 reveals that the weighted average cost of flotation in connection with electric operating utility preferred stock issues was 0.12% in 1935 (4.50% - 4.38%), 0.15% in 1936 (4.77% - 4.62%), 0.15% in 1937 (4.78% - 4.63%), 0.19% in 1938 (5.04% - 4.85%), 0.22% in 1939 (5.21% - 4.99%), and 0.16% in 1940 (4.52% - 4.36%).

Over the entire period 1935-1940, the weighted average cost of flotation was 0.16% (4.74% - 4.58%). In 1940 the cost of flotation for five preferred stock issues carrying a dividend rate of 4½% or lower ranged from 0.11% to 0.16%. These five issues were sold at prices to yield from 3.85% to 4.37% to purchasers.

*Schedule 11-A.*—This schedule contains details of the two electric operating utility preferred stock issues sold to the public in the first two months of 1941. The aggregate offering price of such issues was approximately \$8,000,000, and the average yield to purchasers was 4.81%. It will be noted that both issues carried a dividend rate of 5%.

*Schedule 12.*—Schedule 12 contains details of all known offerings of electric operating utility common stocks during the period from 1935 through February 1941. Of the six issues listed in this schedule, three were offered to the public in 1940, one was offered in 1939, and the other two issues were offered primarily to stockholders in 1935 and 1937, respectively. In contrast with Schedule 9, Page 5, which reflects the sale of \$6,622,520 of new issues of common stock during the year 1940, Schedule 12 reflects common stock sales amounting to \$22,687,290 in that year. By reference to the footnotes in Schedule 12 it will be seen that only the issue of West Penn Power Company (\$4,320,000), and 68,855 shares of the Indianapolis Power & Light Company issue (\$1,652,520) fall within the category of new issues. The difference between the sum of the foregoing amounts, \$5,972,520, and the above total of \$6,622,520 for common stock issues in 1940, is represented by an issue of common stock of Bridgeport Hydraulic Company, a nonelectric utility, amounting to \$650,000.

35 For each issue listed in Schedule 12 there are given the name of the issuing company, a description of the issue.



the offering date, the number of shares offered and amount of offering, the price to underwriters (if underwritten), the net price to company, the price to public in dollars per share, and the cost of flotation in dollars per share and percent of offering price, together with the amount of the issuing company's latest reported annual earnings per share of common stock for a twelve-months' period preceding the offering date, the percent of such earnings per share to offering price, and the percent of gross income available for common stock in the periods for which earnings per share are given.

The first issue in Schedule 12 is that of Boston Edison Company (formerly Edison Electric Illuminating Co. of Boston), comprising 82,289 shares of \$100 par common stock offered to stockholders in the latter part of 1935 at a subscription price of \$150 per share. Approximately 94% of the shares offered were taken up by stockholders and the remaining shares were offered to the public at a price of \$166 per share. The proceeds were used to retire a portion of the company's outstanding indebtedness. On the basis of earnings of \$9.73 per share recorded for the twelve months ended September 30, 1935, the average offering price of \$150.93 per share resulted in an earnings-price ratio of 6.44%. The proportion of the company's gross income available for common stock in the period mentioned was 61.91%.

The second issue in Schedule 12 was sold as the result of an offering to stockholders of Tampa Electric Company in November 1937 to purchase 31,497 shares of the company's no par common stock at a subscription price of \$20 per share. The stockholders subscribed to 30,712 shares, or approximately 97.5% of the shares offered. On the basis of earnings of \$2.41 per share for the twelve months ended July 31, 1937, the offering price of \$20 per share resulted in an earnings-price ratio of 12.05%. In this connection, it should be mentioned that the range of market quotations for Tampa Electric Company common stock in 1937 was 25¼-41. It is thus apparent that the price of \$20 per share paid by stockholders was well below the then current market price.

The next issue shown is that of Newport Electric Corporation, consisting of 59,550 shares of \$20 par common stock offered to the public in May 1939 at \$29.50 per share. This offering did not represent new financing by the company inasmuch as the stock offered, constituting all of the company's outstanding shares, was sold for the account of Utilities Power & Light Corporation.

former parent. The price of \$27.00 per share to underwriters represented a discount of \$2.50 per share from offering price to public, and the net proceeds from the sale amounted to \$26.85 per share. The cost of flotation was therefore \$2.65 per share, or 8.98% of offering price. On the basis of earnings of \$2.85 per share for the twelve months ended March 31, 1939, the offering price of \$29.50 resulted in an earnings-price ratio of 9.66%.

In April 1940, 714,835 no par common shares of Indianapolis Power & Light Company were offered to the public at a price of \$24.00 per share. Of this number, 645,980 shares represented previously issued shares which had been held by the trustee for Utilities Power & Light Company, former parent company. The remaining 68,855 shares represented new financing by Indianapolis

Power & Light Company, the proceeds from which constituted new capital. The price of \$22.00 to underwriters represented a discount of \$2.00 per share from offering price, and the net proceeds from the entire issue amounted to \$21.97 per share, resulting in a flotation cost of \$2.03 per share or 8.46% of offering price. Based on pro forma earnings of \$1.83 per share for the year ended December 31, 1939, the offering price of \$24.00 per share resulted in an earnings-price ratio of 7.63%. The proportion of the company's gross income available for common stock in 1939 was 33.57%. In conjunction with the above offering of common stock Indianapolis Power & Light Company also sold privately an issue of 2,500 shares of 6% cumulative preferred stock as indicated in Schedule 11.

West Penn Power Company offered for sale to the public in April 1940 an issue of 160,000 shares of no par common stock representing new capital. The shares were sold to underwriters at a discount of \$2.00 per share from offering price and other expenses of issuance amounted to \$0.24 per share, resulting in a flotation cost of \$2.24 per share, or 8.30% of offering price. Based on earnings of \$1.62 per share for the year ended December 31, 1939, and on offering price of \$27.00 per share, the earnings-price ratio was 6.00%. The proportion of the company's gross income available for common stock in 1939 was 52.84%. In the same month the company offered publicly its first mortgage 3% bonds, Series K, due 1970, Rating Aa, in the principal amount of \$3,500,000 at a price of 104½ to yield 2.78% to purchasers, as indicated in Schedule 10-A.

In October 1940, 85,000 shares, constituting all outstanding common shares of Michigan Public Service Company, were of-

ferred to the public at a price of \$14.25 per share. The 38 shares offered had previously been held by the trustee for Inland Power & Light Corporation, former parent company; accordingly, the offering did not represent new financing. The price to underwriters was \$12.30 per share, or a discount from offering price of \$1.95 per share. Details of other expenses of issuance were not available. The discount to underwriters was equal to 13.68% of offering price. On the basis of earnings of \$1.16 per share for the twelve months ended June 30, 1940, and offering price of \$14.25 per share, the resulting earnings-price ratio was 8.14%. The proportion of the company's gross income available for common stock for the period mentioned was 24.09%.

*Economic Conditions.*

Chart 7.—Chart 7 shows the range of the composite wholesale commodity price index of the U. S. Bureau of Labor Statistics during the period since 1920, as well as the wholesale price indexes for farm products, foods, and industrial products. From January 1926 through December 1937, the indexes are based on 784 commodity series. However, in January 1938 the number of series was increased to 813, and subsequently, in March 1940, to 863; in October 1940, to 887; and, in January 1941, to 889. The 889 items are grouped into 10 major classifications, consisting of farm products, foods, and eight classifications comprising the industrial products group.

Chart 7 clearly portrays the severe decline in prices which started in 1929 and carried prices to record low levels in 1933. It will also be seen that from March 1933 to March 1937 prices rose steadily, with minor interruptions, the combined index rising from 60% to 88% of the 1926 level during this period. Subsequent to

1937, there was a gradual but steady decline in wholesale 39 prices, the combined index in August 1939 reaching the lowest level since 1934. However, in September 1939, coincident with the outbreak of war in Europe, all indexes advanced sharply. It is of interest to note that wholesale prices of farm products and foods advanced to a much greater extent than prices of industrial products, as indicated below:

	AUGUST 1939	September 1939	Net Increase
All commodities .....	75.0	79.1	4.1
Farm products .....	61.0	68.7	7.7
Foods .....	67.2	75.1	7.9
Industrial products .....	80.1	82.1	2.0

Chart 7 discloses that the abrupt rise in wholesale prices which occurred in September 1939 was followed by a general decline which continued through August 1940. Following a moderate rise in September 1940 an upward trend in wholesale prices was maintained through the remainder of 1940. Data now available disclose that the general level of prices has continued to rise in 1941. The extent of the rise in wholesale prices since August 1940 and the distribution of price increases among the major classifications of commodities are indicated in the following comparison of index figures for the month of August 1940 and for the week ended April 19, 1941:

Number of commodities	Classification	August 1940	Week ended April 19, 1941	Percent increase
889	All commodities	77.4	83.0	7.24
67	Farm products	65.6	75.0	14.33
123	Foods	70.1	77.8	10.98
699	Industrial products	82.6	86.0	4.88
110	Building materials	93.3	100.0	7.18
138	Chemicals and allied products	76.7	82.2	7.17
24	Fuel and lighting materials	71.1	73.3	3.08
41	Hides and leather products	96.9	101.3	7.64
63	House-furnishing goods	88.5	91.6	3.50
146	Metals and metal products	94.9	97.8	3.06
114	Textile products	72.3	80.5	11.34
63	Miscellaneous	76.7	78.1	2.22

<sup>1</sup> Duplications have been eliminated from the total. 22 farm products are duplicated in foods; 2 metals and metal products are duplicated in building materials.

40. It will be seen from inspection of the last column shown in the above summary that since August 1940 all indexes have increased, the percentage gains being 14.33% for farm products and 10.98% for foods. Although standing at a higher level in relation to the 1926 average than the farm products and foods indexes, the index for the industrial products group in April 1941 was only 4.88% higher than in August 1940. The more important changes in the subgroup industrial products indexes were increases of 11.34% for textile products; 7.64% for hides and leather products; 7.18% for building materials; and 7.17% for chemicals and allied products.

Chart 8.—Chart 8 shows the Federal Reserve Board's index of industrial production and the U. S. Department of Labor's indexes of factory employment and pay rolls for the period since 1920, all without adjustment for seasonal variation. The Federal

Reserve Board also publishes a seasonally adjusted index of industrial production, as well as an adjusted index of factory employment derived from the unadjusted indexes computed by the U. S. Department of Labor. For the purposes of this study it was considered preferable to use unadjusted indexes for all three series in order to obtain uniformity. Comparison of the adjusted and unadjusted indexes for industrial production discloses slight variations, but the general pattern of the indexes over a period of time is quite similar. This is because adjustments for seasonal variation are applied to monthly data and cancel out when monthly figures are averaged for a year.

It will be noted that the base period of the index of industrial production is shown as 1923-1925, whereas the index as published uses the years 1935-1939 as the base period. This change  
41 in base period was made in order to permit comparison of the industrial production index with the indexes of factory employment and pay rolls for which the base period is also the years 1923-1925.

The Federal Reserve Board recently published a complete revision of its index of industrial production, the revised index being constructed with the average for the years 1935-1939 as equal to 100, whereas in the old index the average for the years 1923-1925 was taken as equal to 100. As a result of the revision, which was carried back through 1919, the new index is derived from 81 individual monthly series directly representing all principal groups of industries in manufacturing and mining, as compared with 60 individual series from which the old index was derived. The index of industrial production was compiled by the Federal Reserve Board for the purpose of measuring changes in the physical volume of the country's industrial output.

Chart 8 indicates that the 1929 peak in industrial production was reached when the index advanced to 134.5 in September of that year. Commencing in October 1929, the index declined without important interruptions until it had fallen to 59.8 in mid-year of 1932. Following an advance in the Fall of 1932, which was largely cancelled in the first few months of 1933, the index advanced to 96.6 in 1933. After several major fluctuations, the index commenced to rise late in 1934 and this rise continued at an accelerated pace which carried the index 9.2 points above the 1929 peak to 143.7 in May 1937. Thereafter, the index fell



abruptly through the remainder of 1937 and more gradually in succeeding months, reaching its next low point in May 1938 at 93.1. From that level the index advanced to 117.2 in November. Following a minor recession in the early months of 1939, a substantial increase in industrial production resulted in the establishment of the index in October and November 1939 at a level slightly higher than the 1937 peak. After declining to 127.6 in April 1940, the index advanced sharply through the remainder of the year to a 1920-1940 record peak of 155.2 in November and December. It will be observed that the average level of industrial production in 1940, 139.9, was well above the averages of 126.4, 129.9, and 124.1, respectively, shown for the previous peak years 1929, 1937, and 1939.

Data now available disclose that following a minor decline from the December level in January 1941, the index of industrial production rose above the December level to 158.6 in February 1941 and 164.4 (preliminary) in March 1941.

Chart 8 shows that the general course of the index of industrial production has been closely followed by the indexes of factory employment and pay rolls throughout the period since 1920, although the latter indexes have shown a tendency in recent years to pursue lower levels than formerly in relation to the industrial production index. At the peak of industrial production in 1929 (134.5), the employment and pay rolls indexes reached simultaneous peaks of 110.3 and 114.4, respectively. The lowest levels recorded in 1932 and 1933 were 61.0 for employment and 38.3 for pay rolls, while the index of industrial production reached a depression low point of 59.8. At the production peaks of 1937, 1939, and 1940, the employment and pay rolls indexes, in comparison with the industrial production index, were as follows:

43	Industrial production	Factory employment	Factory pay rolls
May 1937.....	143.7	111.5	116.1
November 1939.....	144.8	107.5	103.2
December 1940.....	155.2	116.2	122.4

It is reported that the factory employment and pay rolls indexes for March 1941 were 119.9 and 131.0, respectively, representing increases over December 1940 of 3.7 points for employment and 8.6 points for pay rolls, as compared with an increase of 9.2 points (from 155.2 to 164.4) for industrial production.



It will be noted that although the 1940 average of 139.9 for industrial production was well above the average for previous peak years during the period 1920-1940, the 1940 average of 107.5 for employment was exceeded in 1937 and the 1940 average of 105.4 for pay rolls was exceeded both in 1929 and 1920.

*Chart 9.*—This chart reflects changes in the indexes of durable and nondurable manufactures. These indexes represent two of the three major series on which the Federal Reserve Board's index of industrial production is based, the other series being that on minerals production. The chart also portrays the course of freight carloadings of Class I steam railways by means of an index derived by the Federal Reserve Board from weekly data computed by the Association of American Railroads. The monthly data shown on Chart 9 are adjusted for seasonal variation and cover the period from 1920 to date. The base period for the published indexes for durable and nondurable manufactures is the period

1935-1939; however, the indexes have been recomputed in order to change the base period to 1923-1925, as in the case of the index of industrial production shown on Chart 8. No change has been made in the base period of the published index of freight carloadings.

The Federal Reserve Board's index of durable manufactures covers the production of iron and steel, machinery, transportation equipment, nonferrous metals and metal products, lumber and lumber products, and stone, glass, and clay products. The index of nondurable manufactures covers the production of the following, together with products thereof: textiles, leather, manufactured foods, alcoholic beverages, tobacco, paper, printing and publishing, petroleum and coal products, chemicals, and rubber. In the base period used in the published index, i.e., the period 1935-1939, the proportions of the Federal Reserve Board's index of industrial production represented by production of durable and nondurable manufactures, respectively, were 37.93% and 46.87%, with minerals production accounting for the remainder of 15.20%.

Inspection of Chart 9 discloses that the indexes for both durable and nondurable manufactures, after the depression of 1920-1921, advanced without major declines until 1929, reaching peaks of 138 for durable manufactures and 132 for nondurable manufactures in June of that year. Following 1929 both indexes declined sharply, falling to their lowest depression levels in 1932 and 1933. It will be noted that the production index for durable

goods dropped to 31 in March 1933, while the lowest point reached by the nondurable manufactures index was 87 in July 1932. Subsequently, both indexes advanced to reach their next peaks in 1937. However, while the 1937 peak for nondurable manufactures, at 158 in April and May, was considerably higher than the 1929 peak of 132, the durable goods index, at 136 in August 1937, was slightly below the 1929 peak of 138.

The recession commencing late in 1937 resulted in severe declines in both indexes, the decline from the 1937 peak being about 21% for nondurable manufactures and more than 50% for durable manufactures. In the subsequent recovery period from mid-year of 1938 through the close of 1939 both indexes recovered to approximately the 1937 peak level. The upward trend was reversed during the early months of 1940, but thereafter both indexes advanced and by the year-end had exceeded previous peak levels, the indexes for December 1940 being 161 for durable manufactures (1929 peak, 138), and 171 for nondurable manufactures (1929 peak, 132). After a rise to 167 in January 1941, the index for durable manufactures rose to 169 in February and was 167 (preliminary) for March, while the index for nondurable manufactures, after declining to 168 in January 1941, advanced to 171 in February and to 176 (preliminary) in March.

As will be seen from Chart 9, the freight carloadings index exhibits fluctuations occurring generally at the same times and in the same direction as the production indexes for durable and nondurable manufactures. However, it will be noted that the carloadings index in recent years has moved at a considerably lower level than formerly in relation to the production indexes and failed to approach its predepression level in the production peaks of 1937, 1939, and 1940. From a peak of 110 reached in 1929, the carloadings index declined to 49 in 1932, advanced to 84 in 1937, and was 82 at the 1939 production peak. Declining early in 1940 to 69, the index advanced through the remainder of 1940 and in January 1941 stood at 86, the highest level reached since October 1930. Data now available disclose that the index was maintained at 86 in February and advanced to 87 in March 1941.

*Chart 10.*—This chart shows the total amount of national income payments by type of payment annually from 1929 to date, as computed by the U. S. Department of Commerce. A full discussion of these data is contained in a bulletin recently published by the Department of Commerce entitled "Monthly Income

Payments in the United States, 1929-1940" and a revised series covering the period 1929-1939 was published in the October 1940 issue of the Survey of Current Business, a Department of Commerce publication. Briefly, the series is intended as an index of income payments actually received by individuals. For this reason the series is not identical with the annual estimates of national income published by the Department of Commerce. The principal differences are that in arriving at estimates of national income payments, all business savings (except in agriculture) and employer and employee contributions to retirement and unemployment reserve funds are excluded from national income; and all direct relief payments, public-assistance disbursements by governmental agencies, benefits paid under unemployment compensation and old-age insurance programs, and payments on veterans' adjusted service certificates are included.

The chart shows, as might be expected, that the bulk of national income payments represents compensation of employees. The other major classes of income payments in the order of their importance in proportion to the total consist of entrepreneurial income, dividends and interest, Social Security benefits and other labor income, including pensions, and direct and other relief payments.

National income payments in 1929 are estimated to have been in excess of 82 billions of dollars. By 1933 the figure had declined to less than 47 billion dollars, or only 57.1% of the 1929 total. In 1934 national income payments increased to 54 billions, in 1935 to 58.8 billions, in 1936 to 67.8 billions and in 1937 to 71.8 billions. From 1937 forward the chart shows for each month a twelve-months' moving total in order to disclose the trend. It is indicated that the trend of national income payments was steadily downward through all of 1938 with the result that total income payments for that year were about 5½ billion dollars less than in 1937. Beginning in 1939, however, this downward trend was reversed, and each month during 1939 and 1940 has witnessed a gradual but consistent increase in total income payments with the result that national income payments in 1939 exceeded the total for 1938 by almost 4 billions of dollars, and 1940 payments exceeded those for 1939 by over 4 billions. It will be noted that total income payments of 74 billions in 1940 exceeded the 1937 total by 2½ billions, but amounted to about 8 billions less than the 1929 total.

*Chart 11.*—In any discussion of national income, some means of determining the relative value of the dollar, that is, its purchasing power over the necessities of life, is desirable in order to compare changes in real income as distinguished from cash income. For this purpose, an index of the cost of living may be used. Such an index has been computed by the National Industrial Conference Board to show the trend of living costs of wage earners' families. The index is based on a comprehensive list of retail prices and rents in five classifications which are weighted according to their relative importance as follows: **Foods, 33; Housing, 20; Clothing, 12; Fuel and Light, 5; and Sundries, 30.** In the latter group are included such items as household furnishings, reading materials, recreation and tobacco, as well as organization dues, medical care, carfare, drugs, etc.

By obtaining the reciprocal of the cost of living index (using 1929 as the base year) the purchasing power of the dollar at 1929 prices may be determined for any date. For example, Schedule 17 indicates that the cost of living index for the year 1933 was 74.9. The reciprocal of this index is  $1/74.9$ , or 0.01335, which, translated into dollars and cents, becomes \$1.335. This represents an increase of 33.5 percent since 1929 in the purchasing power of the dollar in its command over the necessities of life for the average wage earner's family.

To illustrate, let it be assumed that in 1929 four units of a given commodity could be purchased for \$1.00; and that by 1933 the cost of living index had declined from 100 to 80, and the same four units could be purchased in 1933 for \$0.80. It is clear that, at \$0.20 per unit in 1933, it would be possible to purchase five units for \$1.00 in that year, as against four units in 1929, so that the 1933 dollar would purchase 25% more of that commodity than the 1929 dollar, or, in terms of 1929 prices the 1933 dollar was worth \$1.25.

However, Schedule 17 indicates that for every \$100 of income payments received by individuals in the year 1929, only \$57.10 was received in 1933. On the basis indicated above, each dollar of this reduced amount of income was worth 1.335 times as much as the 1929 dollar in its command over the necessities of life, so that \$57.10 of 1933 cash income was equivalent to \$76.20 of 1929 cash income. Therefore, although the index of national income payments declined from 100 in 1929 to 57.1 in 1933, the decline in real income was only from 100 to 76.2.

In other words, the effects of the depression would have been much more severe for all concerned if the cost of living had remained at the 1929 level during the depression period.

It is of interest to note that the purchasing power of income payments received by individuals in 1937, on the basis indicated, was practically the same as it was in 1929. In 1938 there was a decline both in cash income received by individuals and in its aggregate purchasing power, while in 1939 and 1940 there has been consistent improvement from the standpoint of both cash income and real income.

#### *Comparative Risk.*

In stating the basic principles in connection with the problem of rate of return, it was indicated that the element of risk is a fundamental factor to be considered in the determination of a proper rate of return. Accordingly, this section is devoted to the presentation of data by means of which the impact of risks confronting public utilities and other forms of enterprise may be measured from the standpoint of stability of earnings.

*Chart 12.*—Chart 12 reflects the trend of corporate earnings, that is, net earnings available for preferred and common stock, based on earnings indexes computed by Standard Statistics Company for 13 utilities, 117 industrials, and all Class I railroads.

From this chart it may be seen that the trend of utility earnings has not been subject to very sharp fluctuations, as in the case of industrials and railroads. While the earnings indexes for the latter two groups dropped within less than four years from peaks of 140 and 120, respectively, in the latter part of 1929, down to levels indicating substantial deficits in 1933, the reduction in public utility earnings in the same period is indicated by a decline in the earnings index from 140 to 90 (base year 1926=100).

Subsequent to 1933 all indexes exhibited a degree of recovery followed by recession in 1934 and 1935, after which there was continued improvement until 1937. The highest levels reached in the latter year were 131.4 for utilities, 114.4 for industrials, and 34.0 for railroads. A decline in earnings of all three corporate groups commenced in the latter part of 1937, but the decline in utility earnings was much less pronounced. It will be noted that an upward trend in net earnings was maintained by all three groups throughout the year 1939, with the result that 1939 earnings exceeded those for 1938. Utility and railroad earnings for

1939 almost equalled the 1937 calendar-year levels, but industrial earnings still remained approximately 25 percent below the 1937 level.

Earnings for the year 1940 on the basis of actual earnings for the first two quarters and estimated earnings for the third and fourth quarters of the year were above those for the calendar year 1939, with industrials and railroads showing the greater gain. The indexes for the year 1940, as shown in Schedule 18, are as follows: Utilities, 124.5; Industrials, 98.2; Railroads, 263. It will be noted that industrial earnings, at 98.2, were somewhat below the 1937 level of 106.1, while utility earnings were slightly lower and railroad earnings were considerably higher than in 1937.

It is of interest to note the average earnings indexes for 51 the eleven-year period 1930-1940 of the three groups of companies, which are as follows: Utilities, 111.7; Industrials, 59.9; Railroads, 11.5. In each instance the earnings index is compared with 1926 calendar-year earnings as equal to 100.

The details supporting Chart 12 are contained in Schedule 18. The names of the thirteen utilities whose earnings form the basis of the public utility earnings index, together with the principal utility service performed by each company or system as measured by the proportion of total operating revenues derived therefrom, are listed on Page 7 of Schedule 18.

An independent compilation of net earnings available for preferred and common stock, as reported by the five predominantly electric utility companies or systems listed on Page 7 of Schedule 18, discloses that the earnings index for those five companies or systems was for the most part on a considerably higher level through the period 1925-1940 than the index for the entire group of thirteen utilities, as may be seen from the following comparison:

Year	Earnings index		Year	Earnings index	
	13 utilities	5 electric utilities		13 utilities	5 electric utilities
1925	87.3	96.5	1933	97.8	130.5
1926	100.0	100.0	1934	88.7	95.7
1927	106.9	107.2	1935	93.1	107.1
1928	124.0	136.3	1936	121.0	114.9
1929	112.6	151.0	1937	125.8	132.8
1930	127.7	163.8	1938	107.1	116.1
1931	123.6	154.3	1939	123.1	137.4
1932	96.9	130.6	1940	124.5	143.2



The above index for electric utilities may be compared with the following indexes based on net income of the entire private electric light and power industry for the years 1932-1939, as reported in "The Electric Light and Power Industry in the United States, Year 1939" published by the Edison Electric Institute (Publication H 2, March 1940, p. 21): 1932, 120.6; 1933, 98.7; 1934, 95.4; 1935, 103.0; 1936, 112.4; 1937, 123.5; 1938, 110.8; 1939, 121.3. It will be seen that the latter index figures for the entire electric utility industry reasonably approximate those for the five electric utilities in the above summary except that from 1937 to 1939 the earnings level of the above five companies was somewhat higher than that of the industry.

It will be of interest to note the results of the following comparison of earnings indexes of the electric light and power and natural gas industries for the period 1932-1939, with the index for 1932 earnings available for dividends and surplus taken as 120.6 for purposes of comparability:

Year	Electric light and power industry	Natural gas industry <sup>1</sup>	Year	Electric light and power industry	Natural gas industry <sup>1</sup>
1932.....	120.6	120.6	1936.....	112.4	189.1
1933.....	98.7	73.6	1937.....	123.5	205.0
1934.....	95.4	86.1	1938.....	110.8	170.2
1935.....	103.0	153.8	1939.....	121.3	197.2

<sup>1</sup> Based on net income available for dividends and surplus as reflected in Volume III, Schedule 2, of this exhibit.

The above index figures for the natural gas industry are based in part on prior years' manufactured gas earnings by companies subsequently changing over to straight natural gas operations during the period mentioned. They also reflect in part the introduction of natural gas in territories not previously supplied with gas service as well as increased net income of companies after commencement of natural gas operations through increased volume of sales, improved operations, or reductions in fixed charges resulting from debt refunding operations. However, while the above earnings indexes for the electric utility and natural gas industries may not be strictly comparable to one another in certain respects, they furnish ample indication that the risks confronting the natural gas industry have not deprived it of an opportunity to achieve substantial growth in recent years.

*Chart 13.*—Chart 13 shows the relationship of net profit to total invested capital for leading American industrial, utility, and railroad corporations, based upon studies and publications of the Standard Statistics Company, and covers the thirteen-year period 1927–1939. Two methods of computing invested capital may be used. By one of these methods invested capital is considered as representing outstanding securities plus surplus and capital reserves. This method is the basis of the data reflected on Chart 13. Net profit, as defined in the computations used for this chart, represents the amount available for fixed charges after depreciation, etc. Accordingly, comparable earnings figures are obtained regardless of differences in capital structure.

It may be pointed out, in connection with Chart 13, that not only are utility earnings more stable than earnings of industrials and railroads but for the ten-year period 1930–1939 the average percent of utility net profit (as defined) to total invested capital was approximately equal to the industrial average and, of course,

considerably higher than the railroad average. The averages for the ten-year period are as follows: Utilities 5.57%; Industrials 5.59%; Railroads 3.17%.

Page 3 of Schedule 19 contains a list of the 21 leading utility corporations for which the relationship of net profit to invested capital is expressed in Chart 13. For each utility corporation or system in the list is shown the principal utility service rendered, together with the percent of total operating revenues derived from such service. It will be noted that 13 of the 21 utility corporations or systems listed therein are predominantly electric utilities.

*Chart 14.*—Chart 14 portrays a similar relationship to that shown in Chart 13. However, in the data supporting Chart 14, which are contained in Schedule 20, invested capital is represented as the total of property accounts (less reserves for depreciation) plus inventories of materials and supplies. The resulting chart does not differ greatly from Chart 13 in the trends shown for the different types of companies, although the percentage levels differ somewhat.

In this instance, also, an independent compilation was made of underlying data for the 13 predominantly electric utility companies or systems (see page 3 of Schedule 19) included in the group of 21 leading utility corporations. From a comparison of the results of such compilation with the percentages of net profit

to property accounts and inventories for the group of 21 leading utility corporations, as presented on the following page, it would appear that the results shown in Chart 14 with respect to the group of 21 utility corporations very closely reflect the earnings experience of the electric utilities included in the group during the thirteen-year period 1927-1939.

Year	Percent net profit		Year	Percent net profit	
	21 utilities	13 electric utilities		21 utilities	13 electric utilities
1927	7.3	7.3	1934	5.8	5.8
1928	7.5	7.2	1935	5.7	5.8
1929	7.6	7.4	1936	6.1	6.0
1930	7.3	7.3	1937	6.4	6.3
1931	6.9	6.8	1938	6.2	5.9
1932	6.1	6.2	1939	5.9	5.8
1933	5.8	5.8		6.2	6.2

#### Local Conditions.

This section is presented to afford a perspective of economic conditions in the general area of ultimate consumption of natural gas supplied through the facilities of Hope Natural Gas Company.

*Chart 15.*—Chart 15 shows the comparative rediscount rates of the New York and Chicago Federal Reserve Banks and indicates that these rates are at the lowest point since 1920, namely, 1.00% and 1.50%, respectively. No change in rate has been effected by either bank since August 1937 as indicated in Schedule 21 which shows all changes in the rediscount rates effected by both Federal Reserve Banks since 1918.

*Schedule 21-A.*—This schedule presents a compilation of the year-end rediscount rates of the twelve Federal Reserve Banks for the years 1929 to 1940, inclusive. It will be observed that in 1937 the rediscount rate of each of the twelve banks, except the Cleveland Federal Reserve Bank, was reduced by one-half percent. The rate then established was 1.50% for all banks, except the Federal Reserve Bank of New York, which reduced its rate from 1.50% to 1.00%. There has been no change in rate since 1937 by any of the twelve banks with the exception of the Federal Reserve Bank of Boston which reduced its rate from 1.50% to 1.00% in 1939.

*Chart 16.*—Chart 16 compares averages of rates on commercial loans charged customers by banks in principal cities of the country and shows separately the rates for banks in New

York, banks in seven northern and eastern cities exclusive of New York City, and banks of eleven southern and western cities. As indicated in Schedule 22 supporting the chart, the figures relate to rates charged by reporting banks to their own customers as distinguished from open market rates. The averages are based on rates reported for all new commercial and industrial loans with maturity of 30 days to 12 months, except paper purchased in the open market and loans secured by real estate, but including business loans secured by stocks and bonds as well as business loans otherwise secured and unsecured. Loans to building and loan associations, insurance companies, credit unions, and similar organizations not engaged directly in financing the sale of consumers' or durable goods, loans to hospitals, educational institutions, etc., and personal or installment loans to individuals other than for business purposes are not included.

The cities included in the group of seven other northern and eastern cities and eleven southern and western cities are listed on Page 2 of Schedule 22. As indicated on Chart 16, the rates charged customers by New York City banks are considerably lower than those charged by the banks outside New York, while the rates of the seven other northern and eastern cities in turn are lower than the rates charged by the eleven southern and western cities. The comparative average rates for the year 1940 are as follows: New York City 2.04%; seven northern and eastern cities 2.56%; eleven southern and western cities 3.38%.

57 It will be noted that all rates drifted steadily lower during the period from the Spring of 1933 through 1936, after which time a certain degree of stability is noted until the early part of 1939. In the latter year changes were made both in the method of computing the averages and in the periods for which rates are reported. It should be noted that the current quarterly averages are not strictly comparable with the monthly averages shown for the period 1928-1938. The two series differ in that the monthly series were based on reports of prevailing rates, whereas for the present quarterly series each bank reports the numbers and amounts of loans made at specified rates and within various rate ranges. On the new basis, rates are at a higher level for New York City by approximately one-half per cent.

Rates currently are based on reports made four times a year covering data on new loans for the first half of March, June, September, and December. Between September 1938 and September 1939 rates first increased and then declined, but it is reported that this

movement was largely due to seasonal influences. Because of methods of reporting, seasonal influences did not appreciably affect the rates that were formerly reported by banks. The rates charged customers by New York City banks and banks in the seven other northern and eastern cities, which include the cities of Pittsburgh, Cleveland and Chicago, reflected a decline in the last quarter of 1939 which was followed by rises in the first and third quarters and declines in the second and fourth quarters of 1940. On the other hand, rates charged by banks in the eleven southern and western cities reflected no substantial change in the last  
 58 quarter of 1939 but exhibited slight increases in the first three quarters of 1940 and a decline in the fourth quarter.

*Schedule 23.*—This schedule contains comparative indexes of department store sales for the United States as a whole and for the Cleveland and Richmond Federal Reserve Districts. The Cleveland District includes the State of Ohio, the western portion of Pennsylvania, the eastern portion of Kentucky and a portion of West Virginia, and the Richmond District includes the remainder of West Virginia, the States of Maryland, Virginia, North Carolina, South Carolina, and the District of Columbia. Schedule 23 indicates that during the period since 1919 the level of department store sales in the above districts compared rather favorably with that for the nation, the index for the Cleveland District being somewhat below the national level and that for the Richmond District considerably above the national level, particularly in recent years. The respective indexes for 1940 (1923-1925=100) were as follows: United States 94, Cleveland District 96, Richmond District 122.

*Schedule 24.*—This schedule is presented for the purpose of comparing the relative changes in the level of income payments for the United States and the States of Ohio, Pennsylvania, and West Virginia for the period since 1929. An index with 1929 as the base year has been computed from estimates published by the National Income Section of the U. S. Department of Commerce. The United States totals in Schedule 24 have been taken from Schedule 16 described above.

It will be noted that from 1929 to 1933 the index of income payments for the United States declined to 57.1, the indexes for Ohio and Pennsylvania falling somewhat below that level and the  
 59 West Virginia index declining only to 58.3. Subsequent to 1933 all indexes advanced through 1937. West Virginia ranking highest in that year at 95.2 and Pennsylvania rank-



ing lowest at 83.5, with Ohio slightly above the national total. All indexes declined in 1938 and advanced in 1939, but the respective 1939 levels remained below those for 1937. The United States index, at 85.4 in 1939, was fractionally higher than the Ohio index, 6.9 points above the Pennsylvania index, and 3.9 points below the index for West Virginia. Consequently it may be said that there has been no drastic change in the level of purchasing power in the three States referred to in relation to the country as a whole during the period since 1929.

*Schedule 25.*—This schedule presents comparative statistics on estimated cash farm income, value of manufactured products added by manufacture, and value of all minerals produced for the United States and the States of Ohio, Pennsylvania and West Virginia. In the upper section of the schedule the data are reported in millions of dollars, while in the lower section the dollar amounts have been reduced to an index with the year 1929 as the base year. Figures are not available for all years in all classifications. Inspection of the data in Schedule 25 reveals that the level of estimated cash farm income from livestock and crops (including Government payments beginning in 1933) was somewhat higher for the three States than for the nation. With respect to value added by manufacture in the States' manufacturing industries, it appears that the levels in the biennial census years for the State of West Virginia have been consistently higher than those for the nation since 1929 and that the indexes for the States of Ohio and Pennsylvania have fluctuated within a narrow range mostly below the national average. However, the value of minerals produced, except in the State of West Virginia, has been relatively lower since 1929, and particularly since 1935, than for the country as a whole. It is of interest to note from the upper section of Schedule 25 that the States of Ohio and Pennsylvania are predominantly engaged in manufacturing, while the production of minerals is the major industry of West Virginia and it will be observed that for each State the level of activity in the predominant industry has been maintained on a favorable basis in relation to the national level. For the three States combined, estimated cash farm income aggregated 7.3%, value added by manufacture amounted to 19.6%, and value of minerals produced was equivalent to 19.1% of the national total, in the latest year for which data are reported.

#### *Idle Money Factors.*

The data in this section are presented for the purpose of showing the present situation with respect to the volume of idle investment



funds and the factors contributing to the growth of such funds in recent years.

*Schedule 26.*—This schedule reflects the total amount of funds carried by member banks of the Federal Reserve System in their reserve balances with the twelve Federal Reserve Banks, together with the portion thereof representing "required" reserves and "excess" reserves, as of the close of each year commencing with 1923.

Required reserves are funds which member banks are required by law to keep on deposit with the Federal Reserve Banks as reserves against deposits made with the member banks by their own customers. Member banks may carry balances with the Federal Reserve Banks in excess of their required reserves; such excess balances constituting what are known as excess reserves.

61. Changes in reserve requirements since June 21, 1917, are shown on Page 2 of Schedule 26. Reserve requirements on demand deposits of member banks vary according to classes of banks. Member banks are classified into three groups: central reserve city banks, reserve city banks, and country banks. Central reserve city banks are member banks located in New York City and Chicago, reserve city banks are member banks in sixty other cities of lesser size, and country banks are member banks located elsewhere. It will be noted that reserve requirements on time deposits are uniform for all member banks, while there are important variations among classes of banks in required reserves based on demand deposits.

It will be noted that in the early years of the period the total reserve balances were not subject to marked fluctuation and excess reserve balances were comparatively small in relation to total reserves, some years in fact, reflecting deficiencies in required reserves. This was the situation prevailing generally prior to 1931. In that year total reserves reached their lowest level following 1923 at 1,961 millions of dollars. In the following two years the reserves increased to 2,729 millions, but the increases in total reserves were reflected by increases in excess reserves which, at the end of 1933, were higher than those shown for any previous year.

From 1933 to 1935 total reserves more than doubled and excess reserves increased by approximately two billion dollars. Reserve balances continued to increase in 1936 but due to an increase in reserve requirements in August of that year excess reserves decreased 860 millions despite an increase of approximately a billion

dollars in total reserves. The increases in reserve requirements in March and May 1937 effected a still further  
62 reduction of 772 millions in excess reserves, although total reserves increased about 400 millions in that year.

In April 1938 reserve requirements were reduced to approximately those established in March 1937 and thereafter, with no changes in reserve requirements, total reserves continued to increase to a level in excess of 14 billion dollars at the close of 1940. Required reserves have increased from 5,815 to 7,411 millions since 1937, but excess reserves have increased by 5,400 millions to the unprecedented total of over 6½ billion dollars, the figure at December 31, 1940, being 6,615 millions.

*Schedule 27.*—The purpose of this schedule is to set forth the factors which supply member bank reserve funds and those which use such funds in such manner as to show the various changes which have accounted for the rise in member bank reserve balances in the Federal Reserve Banks between June 1929 and the close of 1940.

The schedule shows that the factors supplying funds for the building up of member bank reserve balances are increases in outstanding Federal Reserve Bank credit, increases in the monetary gold stock, and increases in U. S. Treasury currency outstanding. Decreases in these items operate to decrease member bank reserve balances. Federal Reserve Bank credit consists of bills discounted for or advances made to member banks, bills bought in the open market, holdings of U. S. Government securities, and other items such as industrial advances made under Section 13b of the Federal Reserve Act.

On the other hand, the factors using or drawing upon member bank reserve balances are increases in currency in circulation, in U. S. Treasury cash holdings, in U. S. Treasury  
63 deposits with Federal Reserve Banks, in non-member bank deposits with Federal Reserve Banks and in other Federal Reserve accounts. Decreases in these items operate to increase member bank reserve balances. The item "other Federal Reserve accounts" consists of the sum of paid-in capital, surplus, other capital accounts, and all other liabilities of the twelve Federal Reserve Banks (excluding funds deposited by member banks and Federal Reserve notes in circulation), less bank premises and all other assets of the Federal Reserve Banks (excluding gold certificates, cash, etc., on hand, holdings of bills discounted, U. S. Government securities, etc.).

Inspection of Schedule 27 will show that the net effect of changes in these factors between June 1929 and December 1940 has been an

increase of 11,670 million dollars in member bank reserve balances with the Federal Reserve Banks. With respect to such increase in member bank reserve balances, it is shown that required reserves increased by 5,078 million dollars and excess reserves increased by 6,592 million dollars.

It is apparent from inspection of Schedule 27 that the most important factor contributing to the increase in member bank reserve balances has been the increase in the monetary gold stock. From approximately 4 billion dollars in June 1929, the gold stock had increased to nearly 22 billion dollars in December 1940, a growth of 18 billion dollars during the period.

Analysis of the growth in the gold stock reveals that approximately 13 $\frac{3}{4}$  billion dollars of the increase has originated since 1934. Available data indicate that about half of this increase was accounted for by the net movement of capital to this country from foreign countries, not including over 4 billion dollars of gold imports arising from unaccounted-for transactions. The remainder of the increase was accounted for principally by a favorable net balance of trade and services with foreign countries and domestic gold production, which were offset to some extent by net imports of silver.

*Schedule 28.*—This schedule shows comparative figures for all years since 1923 on total deposits and total loans and investments of all banks in the United States as contained in annual and monthly publications of the Board of Governors of the Federal Reserve System. Data are shown separately for nonmember banks and member banks of the Federal Reserve System.

The data on deposits reflect an increase of approximately 11.2 billion dollars in total deposits, exclusive of interbank deposits, from June 1929 to December 1940, whereas the comparable figures on loans and investments indicate a decrease during the same interval of about 4.3 billion dollars. The comparison reflects a net increase in uninvested funds during the period since June 1929 of 45.5 billion dollars for all banks in the United States.

For member banks of the Federal Reserve System the increase in deposits during the same period was 13.7 billion dollars which was offset by an increase in loans and investments of 1.4 billion dollars, indicating a net increase of 12.3 billion dollars in uninvested funds of member banks during the period. This amount is seen to correspond fairly closely to the increase of 11.7 billions in member bank reserve balances, between June 1929 and December 1940, shown in Schedule 27.

Because of reserve requirements imposed upon member banks by law, it is evident from Schedule 27 that they are restricted in the use of reserve balances for expansion of loans and investments to that portion thereof representing excess or idle reserves. Such excess reserves, as above stated, amounted to 6,615 million dollars at the close of 1940. It is apparent, however, that loans and investments could be expanded by an amount several times greater than the current aggregate of excess reserves before the latter would be absorbed into required reserves under operation of the reserve requirements presently in effect. This possibility arises from the fact that expansion in loans and investments by the member banks considered as a group would give rise to increased deposits, unless there are offsetting influences, whereas the member banks would be required to increase their reserves against such increased deposits only to the extent of a portion of the amount of the additional deposits created by the new loans and investments, as indicated by the required percentages of reserves to deposits shown on Page 2 of Schedule 26.

From the data presented in this section, it may be seen that opportunities for investments, because of the huge growth in the volume of idle funds, have been more limited in recent years than formerly, particularly in view of the fact that since the beginning of 1934, as reflected in Schedule 9, more than seventy per cent of all corporate financing in the United States has been for refunding purposes. This situation with respect to idle funds has been reflected in the declining level of interest rates during the period since 1934.

As previously stated, Volume III of this exhibit contains general statistics pertaining to the natural gas industry, and in addition, presents facts with respect to the ownership, issuance, prices and yields of securities of natural gas companies. The statistical data are contained in Schedules 1 to 4, inclusive, and Charts 1 to 3, inclusive, as listed in the Table of Contents. The data pertaining to securities of natural gas companies are contained in Schedule 5, together with its underlying Schedules 5-A, 5-B, 5-C, 5-D, 5-E, 5-F1, 5-F2 and 5-G, and in Schedules 6 to 9, inclusive. Information respecting the ownership and corporate affiliations (in the natural gas industry) of Hope Natural Gas Company and certain details in connection with recent financing by its parent, Standard Oil Company (New Jersey), are contained in Chart 4 and Schedules 10 and 11.

*Operating and Financial Statistics of the Natural Gas Industry.*

**Schedule 1—Revenues From Sales to Consumers.**—Schedule 1 portrays the growth of the natural gas industry from the standpoint of revenues, volume of gas sales, and number of customers by years from 1929 to 1939, both inclusive, as taken from Statistical Bulletin No. 41, October 1940, published by the American Gas Association under the title "Annual Statistics of the Natural Gas Industry in 1939." The data on revenues, gas sales and customers are set forth under separate captions in the upper, middle, and lower portions of the schedule.

As indicated in the footnote, the figures do not include  
67 natural gas used in field operations and in the manufacture of carbon black or gas used by distributing companies in the conduct of their own operations. Furthermore, the statistics do not include data for companies selling mixed manufactured and natural gas.

By referring to the upper section of the schedule, it will be seen that during the eleven-year period revenues increased from 376 million to 448 million dollars, or by approximately 19 per cent. With the general falling off of business in 1938, revenues declined some 28 million dollars below the 1937 level but in 1939 they increased approximately 33 million dollars and exceeded 1937 revenues by over 5 million dollars. Following 1929, revenues increased somewhat in 1930, fell off in 1931, 1932, and 1933 and recovered in 1934; each year thereafter except 1938 reflecting a substantial increase over the previous year. According to the report of the American Gas Association for December 1940, revenues for the year 1940 have reflected an increase of 39.3 million dollars, or 8.7%, over the revenues for the year 1939, such increase amounting to 24.5 millions for domestic sales, 5.1 millions for commercial sales, and 9.7 millions for sales to industrial and electric utility customers.

The classification of revenues shown in Schedule 1 reveals that revenues derived from sales to domestic consumers, including natural gas sold for househeating purposes, constitutes substantially more than half of the total revenues reported. In 1929 such revenues amounted to \$223,000,000 and, while falling off to the extent of 5% at the low point of the depression, recovered rapidly and were \$32,000,000 higher in 1939 than in 1929 and, as indicated above, increased \$24,500,000 in 1940.

68 Commercial revenues have shown consistent improvement during the eleven-year period, except in 1933 and 1938, increasing from \$32,000,000 in 1929 to over \$50,000,000 in 1939, a gain of over fifty per cent. A further increase of \$5,000,000 occurred in 1940.



Revenues from industrial sales, including natural gas used as fuel by electric utilities, amounted to \$120,000,000 in 1929. During the depression years, revenues from this source declined to \$75,000,000 in 1932, but subsequently increased and by 1937 were \$26,000,000 higher than in 1929. In 1938 revenues from industrial and electric utility consumers amounted to \$126,000,000 or \$20,000,000 less than in 1937, but in 1939 recovered to \$142,000,000 which amount, however, was still \$5,000,000 below the 1937 total. As above indicated, revenues from this class of consumers for the year 1940 exceeded revenues for the year 1939 by almost \$10,000,000.

It is thus indicated that the revenues of the natural gas industry in 1940 surpassed all previous levels by a substantial margin, with revenues from each class of consumers at the highest level in the history of the industry.

*Average Annual Revenue per M C. F. of Gas Sales.*—The average annual revenue per M C. F. of gas sold amounted to 38 cents in 1929, was 41.1 cents in 1932, 33.7 cents in 1937, 34.3 cents in 1938, and 33.8 cents in 1939, a net decrease of 4.2 cents since 1929. The average for 1940 was 33.9 cents.

The average revenue from domestic sales was 66.7 cents in 1929 and, after reaching 71.1 cents in 1932 and 1933, gradually declined to 68.6 cents in 1939, a net increase of 1.9 cents per M C. F. since 1929. A further decline to 66.8 cents occurred in 1940.

69 The average revenue per M C. F. of gas sold to commercial consumers has been following a steadily downward trend since 1929 and declined from 55.5 cents in 1929 to 46.1 cents in 1939, and to 45.2 cents in 1940, a net decrease of 10.3 cents per M C. F. since 1929.

The average for industrial and electric utility sales has declined from 20.1 cents per M C. F. in 1929 to 16.9 cents in 1939 and 1940, a decrease of 3.2 cents. However, the 1939 and 1940 average was almost one cent higher than the average of 16.0 cents for 1934.

*Gas Sales to Consumers (M C. F.).* Total gas sales reported for 1929 aggregated 991 million M C. F. In 1932, sales reached the low point for the depression period at 834 million M C. F. Subsequent years through 1937 witnessed rapid improvement in volume of sales and the 1937 total was 1,314 million M C. F. A decline of about 104 million M C. F. took place in 1938, but during 1939 the total again reached a new high level of 1,328 million M C. F. It is reported that in 1940 the volume of sales rose to the record level of 1,441 million M C. F. classified as follows: domestic—419 million M C. F., commercial—123 million M C. F., and industrial and electric generation—899 million M C. F.



The bulk of the large increase of 450 million M C. F. in volume of sales between 1929 and 1940 was brought about by increased sales to industrial consumers. Industrial consumption increased from 597 to 899 million M C. F., while commercial consumption increased from 59 to 123 million M C. F. and domestic consumption increased from 335 to 419 million M C. F. between 1929 and 1940.

It may appear that fluctuations in industrial consumption since 1929 have merely reflected changes in economic conditions.

70 However, upon comparison with the fluctuations reflected in the Federal Reserve Board's index of industrial production (see Volume II, Schedule 14, of this exhibit) it is found that, using an index with 1929 as the base year in each instance, industrial consumption did not fall during the depression years to the lowest level reached by the index of industrial production, and in each year since 1934 the index of gas sales to industrial and electric utility consumers has been at a substantially higher level than the index of industrial production. This situation would appear to be accounted for in large part by expansion in the number of industrial customers since 1929, the number having increased from 22,000 customers in 1929 to 43,000 in 1939 and to 46,000 in 1940.

*Average Annual Gas Sales (M C. F.) per Customer.*—The data on average annual sales in M C. F. per customer shown in Schedule 1 are based on the number of customers at the end of each year.

Average annual consumption by domestic consumers declined during the period as a whole, the average M C. F. per customer having fallen from 60.5 in 1929 to 54.3 in 1939. However, the low point was 51.3 in 1934 and there were slight increases in 1935, 1936, and 1937, as well as in 1939, although in the latter year the average was still slightly below the 1937 figure. Increased consumption in 1940 raised the average for that year to 58.6 M C. F. per customer.

The average consumption per commercial customer was 175.6 M C. F. per year in 1929, fell to the low point of 164.2 in 1931, increased to 179.3 in 1932, declined to 170.4 in 1933, and increased thereafter in each year to 204.4 in 1937. It declined in 1938 to 192.3, but increased to 202.1 in 1939 and was 218.9 in 1940.

71 *Average industrial sales in M. C. F. per customer per year.*—Average industrial sales in M. C. F. per customer per year, fluctuated more sharply as would be expected in a period of changing economic conditions such as business has experienced since 1929. The sales per customer were 27,135 M C. F. in 1929, dropped to 17,440 in 1933 and recovered thereafter, reaching 21,294 in 1937. In 1938 the average consumption per customer declined to 18,044 M C. F., but in 1939 it increased to 19,673 M C. F. In 1940 the average declined to 19,550 M C. F. per customer.

*Number of Customers at End of Year.*—The data on number of customers at end of year shown in the lower portion of Schedule 1 reveals a substantial growth since 1929, the number of all customers increasing from 5,896,000 in that year to 7,454,000 in 1939, an increase of 1,558,000 customers. A further gain of 309,000 customers in 1940 brought the number of customers at the close of the year to 7,763,000, classified as follows: domestic—7,157,000, commercial—560,000, and industrial—46,000. In only one year, 1932, is a decline in total number of customers shown although it will be noted that the number of customers did not vary between 1930 and 1931.

Domestic customers increased in number from 5,546,000 in 1929 to 6,870,000 in 1939 and to 7,157,000 in 1940 a gain of 29% in the twelve-year period. Except in 1931 and 1932 there was a substantial increase in the number of domestic customers each year. The number of commercial customers reflected a marked growth during the period since 1929, the increase in this group being from 324,000 in 1929 to 560,000 in 1940, a gain of about 70 percent. The number of industrial customers has more than doubled, increasing from 22,000 in 1929 to 46,000 in 1940.

72 *Average Annual Revenue per Customer.*—The average revenue per domestic customer was \$40.34 in 1929. The average had declined to \$36.14 by 1934 but improved thereafter, rising to \$38.06 in 1937. Following a decline in 1938, the average increased to \$37.24 in 1939 and to \$39.17 in 1940. Average revenue per commercial customer amounted to \$97.54 in 1929. After declining to \$85.83 in 1933, the average rose to higher levels in succeeding years and stood at \$96.32 in 1937. Following a sharp decline in 1938 a partial recovery was recorded in 1939 for which year the average was \$93.09. In 1940 the average increased to \$98.96, establishing a record for the twelve-year period. Average revenues per industrial customer fluctuated considerably during the period under discussion. The average was \$5,400 in 1929 but declined to \$2,800 in 1932. Subsequent improvement was effected through 1937, the average for that year being \$3,600. In 1938 the averaged dropped to \$3,000, but recovered and stood at \$3,300 in 1939 and 1940.

*Schedule 2.*—Schedule 2 contains comparative estimated income statements for the years 1931 to 1939, inclusive, of the companies for which revenues, gas sales, and customer data are presented in Schedule 1, and was taken from the same statistical bulletin of the American Gas Association.

It will be noted that the revenues from gas sales to consumers shown on the first line in Schedule 2 are in agreement with the revenue data shown in the upper portion of Schedule 1. Examination of Schedule 2 discloses that net operating income, designated as "Utility Operating Income" was \$107,681,000 in 1939, or about \$10,000,000 higher than that for 1938 although \$4,000,000 lower than the 1937 figure of \$111,811,000 which represented the peak for the nine-year period, and \$2,000,000 lower than the 1936 total. The low point following 1931, for which year net operating income was reported at \$84,061,000, was reached in 1933 at \$65,188,000. In 1934 net operating income recovered to \$71,382,000 and increased to \$93,508,000 in 1935.

Net income available for dividends and surplus followed the same general trend, starting at \$51,103,000 in 1931, declining to \$26,940,000 in 1933, rising rapidly to \$74,989,000 in 1937, falling to \$62,275,000 in 1938, and increasing to \$72,152,000 in 1939. It will be noted that although net operating income in 1939 was lower than in 1936, net income available for dividends and surplus was higher in 1939 by \$3,000,000, chiefly because of a decrease in interest and other deductions of almost \$6,000,000.

Utility plant, which is reported only for the years 1934 to 1939, inclusive, increased from 1934 to 1938 by approximately \$111,000,000. In 1939 utility plant was reported at \$2,414,490,000, which was about \$27,000,000 less than the amount reported for 1938.

*Chart 1.*—This chart shows at the right monthly sales of natural gas by months during the years 1929, 1939, and 1940. At the lower left are shown monthly revenues of the natural gas industry and, at the upper left, revenues of the manufactured gas industry and combined revenues of the total gas industry during the same years.

The revenues for the entire gas industry were higher in 1939 than in 1929, but showed a substantial increase in 1940 over 1939, due to increased revenues from sales of natural gas. Revenues from the sale of manufactured gas show generally a decline although 1940 revenues were higher than those for 1939. The curves in the lower left section of the chart show that the revenues of the natural gas industry have increased substantially since 1929 and are at a new high level in 1940.

The group of curves on the chart at the right shows that the business of natural gas companies is highly seasonal in character.

as indicated by monthly fluctuations in the volume of gas sold. Volume of sales in recent years has been substantially greater than in 1929. Deliveries during all of 1940 were greater in volume than in 1939 and were at the highest level in the history of the industry.

*Chart 2.*—Chart 2 is presented in order to show the monthly trend of sales in 1940 as compared with 1939 both in total and by classes of revenue, i. e., domestic, commercial, and industrial. The chart shows that total monthly revenues in 1940 were substantially higher than in 1939, with the largest consistent gain being in domestic revenues, although industrial and commercial revenues, particularly in the first few months of 1940, also reflected a substantial increase over 1939. The February peak in revenues will be seen to have been accounted for by peaks in domestic and commercial revenues recorded in that month.

*Chart 3.*—Chart 3 is a photostatic copy of a chart taken from the American Gas Association's Statistical Bulletin No. 41, October 1940, after superimposing thereon an added index showing the trend of total natural gas sales since 1929 independently computed from data contained in the statistical bulletin above mentioned. The chart compares the American Gas Association's index of total natural gas consumption by domestic and commercial consumers with its index of manufactured gas consumption by all classes of consumers, and with the Standard Statistics index of industrial activity, the year 1926 being employed as the base year for all indexes. For the added index of total natural gas consumption by all classes of customers, the year 1929 has been taken as equal to 125 (the index for that year of natural gas sales to domestic and commercial consumers only).

The reason for the method employed by the American Gas Association of excluding industrial sales in its index of natural gas sales while including such sales in its index of manufactured gas sales is found by comparison of the relationship of industrial sales to total sales. In the case of manufactured gas, industrial sales for the twelve months ended December 1940, as reported in the American Gas Association's Monthly Summary of Gas Company Statistics for that month, amounted to approximately 62.9 million M C. F., or roughly 16% of total manufactured gas sales. However, sales of natural gas for industrial use in the same period, including sales for electric generation purposes, amounted to approximately 899 million M C. F., or 65% of total natural gas sales.

The chart shows that manufactured gas sales rose to 116% of the 1926 level in 1930, fell to somewhat less than the 1926 level in 1932, increased steadily thereafter through 1939, the index reaching about 120 in that year. Sales of natural gas for domestic and commercial consumption, however, have increased to a substantially greater extent since 1926 than manufactured gas sales. The index of such natural gas sales rose to 130 by 1930, dropped to 118 in 1932, which was still far above the 1926 level, advanced to about 146 by 1937, and receded to a moderate extent in 1938, but reached a new peak in 1939. Thus in 1939 the volume of natural gas sales for domestic and commercial use was approximately 54% greater than in 1926, while manufactured gas sales volume was only about 20% greater.

The superimposed index for total natural gas sales fell sharply commencing in 1931 and was approximately similar to that for total manufactured gas sales in 1931 and 1932. Thereafter, however, the index of total sales rose much more abruptly than that for domestic and commercial sales through 1937. The index declined in 1938 but rose to a new peak of 168 in 1939, as compared with the 1939 index of 154 for domestic and commercial sales only.

It will be seen by comparison with the Standard Statistics index of industrial activity that although both the natural and manufactured gas industries experienced a decline in volume of gas sold during the depression years, the volume did not decline below the 1926 level, except to a slight extent in the case of manufactured gas, in contrast with the experience of industry in general, for which a decline in activity of about 45 per cent from the 1926 level was recorded at the lowest depth of the depression.

*Schedule 3.*—Schedule 3 shows the aggregate volume of natural gas production and consumption in the United States for the years 1926 to 1939, inclusive, and the portion of the total gas consumed which was transported in interstate commerce. From 1926 to 1939, natural gas production increased from 1,313 million to 2,477 million M C. F. Consumption, excluding gas used for field operations and manufacture of carbon black, increased from 704 million to 1,446 million M C. F. in the same period. Natural gas transported in interstate commerce increased from 209 million M C. F. in 1929 to 687 million M C. F. in 1939. In other words, since 1926 production has increased 88%, and consumption other than for field use and carbon black manufacture has more than doubled.

These increases were accompanied by an increase of over 225% in the quantity of natural gas transported in interstate com-



merce and, as will be seen from column (e) of the schedule, the proportion of the total quantity of natural gas consumed which is transported in interstate commerce has also been steadily increasing. Thus in 1939 this proportion was about 48% of total consumption, whereas in 1926 the proportion was approximately 30%, indicating the increased importance in recent years of natural gas as a commodity in interstate commerce.

*Schedule 4.*—Schedule 4 is presented for the purpose of disclosing the interstate movement of natural gas from and to the States of West Virginia, Ohio, and Pennsylvania, as indicated by data obtained from publications of the U. S. Bureau of Mines. Page 1 of the schedule shows that since 1926 the major portion of the gas produced in West Virginia has been delivered to other States and that the quantity of gas imported from other States has been negligible in proportion to the quantity produced in the State. Of the gas consumed within West Virginia the average consumption by domestic and commercial consumers has approximated one-third, and gas consumed by industrial customers, about two-thirds, of the total. The major portion of natural gas delivered to other States is accounted for by deliveries to the State of Ohio, with Pennsylvania, Kentucky, and Maryland ranking next in the order mentioned.

In 1939, the quantities of natural gas produced and consumed in the State of West Virginia, including receipts from and deliveries to other States may be summarized as follows in millions of cubic feet:

78	Produced in State.....	159,226	Consumed within State.....	69,394
	Received from other States.....	12,482	Delivered to other States...	102,314
		<hr/> 171,708		<hr/> 171,708

<sup>1</sup> Consists of deliveries to : Ohio—70,578; Pennsylvania—25,766; Kentucky—5,051; and Maryland—919.

Page 2 of Schedule 4 shows similar data for the States of Ohio and Pennsylvania. It is indicated that the combined natural gas production of both States was less than that of West Virginia in both 1938 and 1939, although in prior years the reverse situation prevailed, except from 1926 to 1929, inclusive. The data disclose that since 1926 the consumption requirements of the State of Ohio have far exceeded the production of natural gas in that State. With respect to Pennsylvania it appears that the quantity



of gas consumed has been somewhat in excess of that produced except in the years 1935 and 1936. It is of interest to note, with respect to both States, that the largest proportion of gas imported from other States is received from West Virginia.

*Ownership, Issuance, Prices and Yields of Securities of Natural Gas Companies*

*Schedule 5.*—Schedule 5 contains summarized data with respect to the outstanding securities of 43 natural gas companies.

In preparing this list an attempt was made to include all natural gas companies which had the following characteristics:

(1) Companies engaged in the production and transmission of natural gas and sales thereof at wholesale and to main-line industrial customers.

(2) Companies engaged in the transmission of natural gas and sales thereof at wholesale and to main-line industrial customers.

(3) Companies such as those described in (1) and (2) above which also conduct retail distribution operations.

(4) Companies so engaged which have annual operating revenues of \$2,000,000 or more.

The purpose of selecting companies conducting operations of the type mentioned with revenues of \$2,000,000 or more was to obtain a group of companies exhibiting generally the characteristics of Hope Natural Gas Company.

Schedule 5 sets forth for each of the 43 companies having the characteristics just mentioned the total amount of securities outstanding and a break-down of the total for each company according to classes of securities, i. e., bonds, debentures, notes and advances, preferred stock, and common stock. Also shown for each company and each class of security, based on the most recent information available, are the amounts of securities held by the public, by institutions, and by affiliates. Institutional holdings include securities held by banks, insurance companies, universities, etc.

In this connection, it should be pointed out that Schedules 5-A to 5-G, inclusive, contain details supplementing or supporting the data contained in Schedule 5. For example, Schedule 5-A contains certain information with respect to the bonds, debentures, and notes of the companies listed in Schedule 5 which are held by the public. Schedule 5-B gives details regarding the

identity of institutional holders of bonds, debentures, and notes of the companies and the amounts of individual holdings. Schedule 5-C lists the holdings of bonds, debentures and notes and advances by affiliates. Schedule 5-D shows certain information with respect to preferred stocks of the companies held by the public, and 80 Schedule 5-E sets forth the holdings of preferred stocks by affiliated interests. Schedule 5-F1 contains data on market prices, earnings per share and earnings-price ratios on those common stocks of the companies which are publicly held, and Schedule 5-F2 contains historical data with respect to the earnings and dividends applicable to such common stocks. Lastly, common stock holdings by affiliates of the companies are listed in Schedule 5-G.

The summary at Page 8 of Schedule 5 discloses that the 43 natural gas companies listed therein had securities outstanding as of the latest date for which information is available in the aggregate amount of \$1,185,843,857. These outstanding securities consisted of bonds, debentures, and notes and advances aggregating \$479,329,723, or 40.4% of the total, preferred stocks in the amount of \$98,789,710, or 8.3%, and common stocks in the amount of \$607,724,424, or 51.3%. The respective amounts of bonds, debentures, and notes and advances outstanding together with the relationship of each to the total amount of all securities outstanding, were as follows:

	Amount	Percent of all securities outstanding
		Percent
Bonds	\$262,669,523	22.2
Debentures	45,350,000	3.8
Notes and advances	171,310,200	14.4
Total	479,329,723	40.4

Of the total amount of bonds, debentures, and notes and advances, affiliated interests held \$196,519,200, or 41.0%, institutional holdings totalled \$183,459,000, or 38.3%, and holdings by the general public amounted to \$99,351,523, or 20.7%. Of the total of \$98,789,710 of preferred stocks outstanding, holdings by af- 81 filiated interests amounted to \$35,661,000, or 36.1%, and public holdings amounted to \$63,128,710, or 63.9%. Of the common stocks outstanding, amounting to \$607,724,424, the public held \$205,668,247, or 33.8%, and affiliated interests owned all but a fraction of the remainder.

Applying similar calculations to the total of all outstanding securities of the 43 companies listed in Schedule 5, it is found that the proportion held by the general public was 31.1%, and that held by institutional investors was 15.5%, while the proportion held by affiliated interests constituted 53.4%, or more than one-half of the total.

Inspection of Schedule 5 discloses that with respect to 28 of the 43 companies listed all of the securities outstanding were held by affiliates and institutions; leaving only 15 companies whose securities are available to the general public for investment purposes. The following summary discloses the magnitude of security holdings by affiliates and institutions in the 28 companies which have no securities outstanding in the hands of the general public:

	Securities held solely by			Percent of total for 43 companies
	Affiliates	Institutions and affiliates	Total	
Bonds, debentures, etc.	\$133,592,200	\$136,790,000	\$270,292,200	Percent 56.4
Preferred stocks	21,315,000	2,000,000	23,315,000	23.6
Common stocks	128,778,716	139,184,211	267,962,927	44.1
Total	283,625,916	277,974,211	561,600,127	47.4
Number of companies	19	9	28	

Of the remaining 15 companies whose securities are held by the general public in whole or in part, 9 companies have bond issues, 5 companies have preferred stock issues and 13 companies have common stock issues which are traded in the securities markets.

82 Of the outstanding securities of the above 15 companies, aggregating \$624,243.30, it is of interest to note that holdings by affiliates amount to \$172,316,250 and institutional holdings equal \$83,779,000, leaving a balance of \$368,148,480 representing holdings by the general public.

The foregoing calculations clearly demonstrate that a substantial proportion of the outstanding securities of natural gas companies is held by affiliated interests and institutional holders. To summarize, affiliated interests and institutional holders owned 79.3% of the bonds, debentures and notes, and advances, 36.1% of the preferred stocks, 66.2% of the common stocks and 68.9% of the total amount of outstanding securities of the 43 companies listed in Schedule 5. On the other hand, securities held by the general public constituted 20.7% of the bonds, debentures and notes,

63.9% of the preferred stocks, 33.8% of the common stocks and 31.1% of the total of all outstanding securities of the 43 companies referred to.

There is presented in an appendix following the written statement contained in this Volume I, a brief description of the history, operations, properties, and subsidiaries of each of the companies listed in Schedule 5.

*Schedule 5-A.*—Schedule 5-A lists the bond and debenture issues of the companies included in Schedule 5 of which any portion was held by the general public. The schedule also lists the bond issues of such companies which were outstanding in the hands of the public during any part of the period since 1937, but which had been subsequently retired. For each issue the schedule shows the name of the issuing company, a description of the issue, the amount of the public offering, the offering price, the approximate yield at offering price, the offering date, the date of retirement, the total principal amount outstanding, the portion thereof held by the public and the ratings assigned by Moody's and Poor's publications. The schedule next shows the averages of high and low market prices for the years 1937 to 1940, inclusive, together with the approximate yields to maturity based thereon. This information is followed by data on market prices as of February 28, 1941, and yields to maturity based on such prices. The last two columns of the schedule show the respective current call prices for general and sinking fund purposes.

The first issue shown in Schedule 5-A consists of first mortgage 4% bonds, due 1951, of Arkansas Louisiana Gas Company. This issue, which carried Moody's and Poor's A rating, was offered to the public in 1936 at a price of 98 to yield 4.18% to purchasers. On the basis of average high and low market prices the yield to investors was slightly less than 4.00% in 1937 and 1938, and 3.69% in 1939. The bonds were retired in connection with refunding operations in October 1939, as indicated by Note (d) of Schedule 6, when the company sold privately one issue of short-term, and one issue of long-term serial bonds at par to yield 2.75% and 3.50%, respectively, to purchasers.

The next two issues listed consist of pipe-line mortgage bonds of Cities Service Gas Company which were offered in 1927 and 1928 and retired in February 1939. The issues carried Moody's Baa rating and interest rates of 6% and 5½%, respectively, and during 1937 and 1938 were selling below par to yield from 6.36% to 7.06%. In December 1938 as indicated in Note (c) on Page 2 of Schedule

5-A, the above bonds were retired with proceeds from the private sale at par of \$20,000,000 of first mortgage 3¾% bonds, due 1947-54 and \$15,000,000 of 3¼% notes, due 1940-46, secured by like amount of first mortgage 3¼% bonds of the same maturity. In addition, the company issued \$8,000,000 of 3½% debentures to its parent. A portion of the proceeds from the securities sold was applied to reduction of indebtedness due to the parent company.

The next issue consists of Consolidated Gas Utilities Corporation's first mortgage and collateral 6% bonds, due 1943, originally issued in 1928. The bonds carried Moody's B rating and were selling at prices to yield from 11.22% to 18.25% during the period 1937-1940. However, as of February 28, 1941, the bonds were selling on a basis to yield 5.60% and it is reported that in April 1941 the company sold privately a \$6,500,000 issue of first mortgage 4% bonds, due 1956, and \$900,000 of 5% debentures, due 1951. With the proceeds from the latter issues and from a bank loan of approximately \$100,000, the company retired its outstanding 6% bonds.

The next issue listed is that of El Paso Natural Gas Company, consisting of first mortgage 4½% bonds, due 1951. These bonds were offered to the public in 1936, together with an issue of 4¾% convertible debentures, due 1946. The bonds, carrying Moody's B rating, were sold at 98½ to yield 4.64% to purchasers and were selling above par in 1937 and 1938 to yield 4.17% and 4.09%, respectively. The 4¾% debentures, carrying Moody's B rating, were offered to the public at par in June 1936 and were quoted at prices ranging from 137½ to 173 during the remainder of 1936. Approximately 80% of the issue was converted into common stock prior to the end of 1936, the conversion ratio being 60 shares of common stock for each \$1,000 debenture. The market price of the debentures was apparently influenced by that of the common stock which ranged from 22¾ to 29¼ during 1936. The 4½% bond issue and the unconverted portion of the 4¾% debentures, together with an issue of first mortgage 4% bonds sold privately in 1937, were retired in January 1939 with the proceeds of a \$4,000,000 issue of 3% serial notes, due 1939-45, and a \$6,000,000 issue of first mortgage 3½% bonds, due 1953. The new bonds were sold privately at 99 to yield 3.59% to purchasers. In 1940 the company sold privately \$3,000,000 principal amount of first mortgage 3% bonds, due 1955, at 98½ to yield 3.13%.

The next issue appearing on Schedule 5-A consists of first collateral 6% bonds, due 1943, of Houston Natural Gas Corporation. These bonds were publicly offered in 1928 at par. During the period 1937-1940, average market prices resulted in yields ranging downward in successive years from 5.70% to 4.71%. The bonds were retired in December 1940, the company in September 1940 having sold a new issue of first mortgage 4% bonds, due 1955. The new bonds were offered at par but were selling above call price at February 28, 1941, to yield 3.70% to purchasers. It is of interest to note that the new bonds were assigned Moody's Baa rating, representing an improvement over the Ba rating assigned to the prior issue.

Next in order on Schedule 5-A is a 5% debenture issue, due 1942, of Lone Star Gas Corporation. On the basis of the average market price of the debentures during 1937 up to the date of retirement in November, the yield to purchasers was 4.10%. The outstanding portion of this issue was retired with the proceeds from the sale in August 1937 of  $1\frac{3}{4}$ -4% unsecured notes, due 1938-42.

86 In August 1938, the company offered publicly, at a price of 102 to yield 3.33%, a \$20,000,000 issue of  $3\frac{1}{2}$ % convertible debentures, due 1953, carrying an A rating. The market price of these debentures during the years 1938-1940 resulted in yields ranging from 3.07% in 1938 to 2.80% in 1940. The  $3\frac{1}{2}$ % debentures, together with certain bank loan notes, were retired in March 1941 with proceeds obtained from the sale to banks of \$26,000,000 of 2-2 $\frac{1}{4}$ % notes, due 1941-51, secured by pledge of substantially all of the company's holdings of securities of its subsidiaries.

From inspection of the data covering the various bond issues of Montana-Dakota Utilities Co. it appears that from 1937 until 1939 the company's bonds were selling at yields above 6.00%. However, in May 1939, the company made a public offering of first mortgage  $4\frac{1}{2}$ % bonds, due 1954, and sold to banks \$2,100,000 of  $4\frac{1}{4}$ % serial promissory notes, due 1940-46. With the proceeds the company retired all of its previously outstanding debt with the exception of the  $4\frac{1}{2}$ % debentures which had been issued in 1936. The new  $4\frac{1}{2}$ % bonds, which were assigned Moody's Baa rating, were offered at a price to yield 4.41%; but based on subsequent market prices the yield declined to 4.21% in 1939 and to 4.04% in 1940. In January 1941 the company retired its outstanding  $4\frac{1}{2}$ % debentures, together with certain note indebtedness, through the issuance of  $1\frac{1}{2}$ -3 $\frac{1}{2}$ % notes, due 1941-50, which were sold to:



banks. In the same month the company retired its outstanding 4½% bonds, due 1954, which had been publicly offered in May 1939, together with an issue of 4½% bonds, due 1956, which had been sold privately in 1940. The latter two issues were retired with the proceeds from the sale in January 1941 of \$7,500,000 of first mortgage 3½% bonds, due 1961, and \$2,500,000 of first mortgage 2½% serial bonds, due 1942-49. Moody's Baa rating was 87 assigned to both issues. The new 3½% bonds were offered at a price of 103½ to yield 3.26% to maturity and at February 28, 1941, were quoted at 102¼ resulting in a yield of 3.34%. The shorter-term 2½% serial bonds were offered at prices resulting in yields ranging from 0.63% to 2.25%, according to maturity, and appear to have been sold privately inasmuch as a quotation on the issue as of February 28, 1941, was not available.

The next two issues consist of 5½% and 6½% first mortgage bonds of North Penna Gas Company, the former maturing in 1957 and the latter in 1942. Portions of the 5½% issue were sold to the public in 1927 and 1930, respectively, the 6½% issue having been offered in 1932. Both issues carry Moody's A rating. The 5½% issue was originally offered at discounts below par but in the period 1937-1939 was quoted at average prices in excess of par to yield slightly above 5.00%. The average price in 1940 was 99, resulting in a yield of 5.59%. However, at February 28, 1941, the issue was again selling above par to yield 5.36% to maturity. Quotations are not available on the 6½% issue.

Oklahoma Natural Gas Company in June 1936 issued \$20,000,000 of first mortgage 4½% bonds, due 1951, rating Baa, at a yield of 4.64% and at the same time offered publicly a \$10,000,000 issue of 5% convertible debentures, due 1946, rating Ba, at par. During the years 1937-1939 the yields on these issues reflected substantial declines and in 1939 the 4½% bonds were selling on a 3.92% yield basis and the 5% debentures were quoted at prices resulting in an average yield of 4.15%. In connection with refunding operations the company in August 1939 made a public offering of \$17,000,000 of first mortgage 3¾% bonds, due 1955, of Baa rating, at 88 a price of 103½ to yield 3.46% to purchasers. With the proceeds from the sale, together with proceeds from an \$8,000,000 issue of unsecured 2¾% promissory notes, due 1941-46, and from the sale of 58,000 shares of \$5.50 convertible prior preferred stock, the company retired its outstanding 4½% bonds and 5% debentures together with 22,200 shares of 6%, \$100 par, convertible prior preference stock. In 1939, subsequent to their is-

suance, the new  $3\frac{3}{4}\%$  bonds were selling on a 3.29% yield basis. In 1940 the average yield declined to 3.20%, and at February 28, 1941, the bonds were quoted at  $2\frac{1}{2}$  points above call price to yield 3.09%.

The next group of issues listed in Schedule 5-A is comprised of bond issues of Pacific Lighting Corporation and its subsidiaries, Southern California Gas Company and Southern Counties Gas Company of California. The first issue shown consists of  $4\frac{1}{2}\%$  debentures, due 1945, of Pacific Lighting Corporation. These debentures, carrying Moody's A rating, were publicly offered in 1935 at par. During the years 1937 and 1938 in which the debentures were outstanding they were selling at prices to yield 3.26% and 3.85%, respectively. The  $4\frac{1}{2}\%$  debentures then outstanding were called on April 5, 1939, the funds for their retirement having been obtained from the sale of \$7,000,000 of 3% unsecured promissory notes, due 1940-49.

Southern California Gas Company in March 1931 offered a \$12,500,000 issue of first mortgage  $4\frac{1}{2}\%$  bonds, due 1961, and in July 1935 sold \$15,000,000 of first mortgage 4% bonds, due 1965. Moody's Aaa rating was assigned to both issues. In the years 1937-1940 the  $4\frac{1}{2}\%$  bonds were selling at prices considerably above par to yield approximately 4.00% throughout the period.

The 4% bonds, which were offered in July 1935 at  $101\frac{1}{2}$  to yield 3.91%, were being sold during the years 1937-1940

on the basis of yields ranging from 3.74% in 1937 to 3.43% in 1940. Both issues were retired in November 1940 with the proceeds from a public offering in September 1940 of \$30,000,000 of first mortgage  $3\frac{1}{4}\%$  bonds, due 1970, at a price of  $103\frac{1}{2}$  to yield 3.07%. During the remainder of 1940 the bonds were selling on a 2.94% yield basis and at February 28, 1941, the bonds were quoted at  $105\frac{3}{4}$  to yield 2.95%. It is reported that in April 1941 the company floated an additional \$5,000,000 principal amount of first mortgage  $3\frac{1}{4}\%$  bonds, due 1970, at a price of  $104\frac{1}{4}$  to yield 3.03% to investors. The  $3\frac{1}{4}\%$  bond issues offered in 1940 and 1941 were assigned Moody's Aa rating, whereas the prior bond issues had carried the Aaa rating.

Southern Counties Gas Company of California in January 1941 offered publicly \$11,500,000 principal amount of first mortgage 3% bonds, due 1971, rating Aa, from the proceeds of which the company retired its outstanding first mortgage  $4\frac{1}{2}\%$  bonds, due 1968, also rated Aa, which has been sold to the public in 1928. It is of interest to note that whereas the  $4\frac{1}{2}\%$  bonds averaged

yields of about 4.25% during the years 1937-1940, the new 3% bonds offered in January 1941 were sold to the public at a price of 101 to yield only 2.95%. The 3% bonds were quoted at 101 $\frac{3}{8}$  as of February 28, 1941, to yield 2.93%.

The two issues next appearing in Schedule 5-A consist of first mortgage bonds of Panhandle Eastern Pipe Line Company. The first issue shown was offered in the principal amount of \$24,000,000 in 1937 and consisted of 4% bonds, due 1952, carrying an A rating. The bonds were offered at a discount of 2 $\frac{1}{2}$  points below par in April 1937 to yield 4.23% to maturity.

90 However, the yield declined from 4.06% in 1937 to 3.60% in 1940. In March 1941 the company retired the outstanding portion of the above 4% bond issue with proceeds from the sale in January 1941 of first mortgage bonds and notes. The company offered publicly \$12,000,000 of 3% bonds, due 1960, rating A, at a price of 102, which resulted in a yield of 2.87% to purchasers. At February 28, 1941, the 3% bonds were quoted above par on a 2.92% yield basis. In addition to its public offering of first mortgage 3% bonds in January 1941, the company sold privately \$6,250,000 of first mortgage serial bonds, due 1946-50, carrying interest rates of 1.65, 2.30%, according to maturity, and sold to banks \$5,000,000 of serial notes, due 1942-45, with interest rates from 0.75, 1.50%, according to maturity.

The bonds of Southern Natural Gas Company listed in Schedule 5-A include two issues, consisting of first mortgage 4 $\frac{1}{2}$ % bonds, due 1951, carrying a Baa rating, and Adjustment Mortgage 6% bonds, due 1960, which have been assigned Moody's B rating. In addition there is shown in Schedule 5-A the amount of outstanding funded debt of the company's subsidiaries and the portion thereof held by the general public. The 4 $\frac{1}{2}$ % bonds were offered in November 1936 at par. During 1937 and 1938 the bonds were selling below par to yield as high as 4.87%, but in 1939 and 1940 the yields based on average market price were 4.12% and 3.87%, respectively. At February 28, 1941, the 4 $\frac{1}{2}$ % bonds were quoted at one point above call price to yield 3.77%. The 6% adjustment mortgage bonds were issued in 1936 pursuant to a reorganization plan to holders of the predecessor company's 6% convertible debentures, due 1944, and to holders of allowed claims on the basis of \$500 of new adjustment  
91 bonds (plus 48 shares of new class A stock) for each \$1,000 principal amount of old debentures and \$1,030 principal amount of such claims held (Moody's Public Utilities, 1937,

p. 205). The yield on the 6% adjustment bonds declined from 7.74% in 1938 to 6.19% in 1940 and at February 28, 1941, was 5.95%.

In this connection it should be mentioned that according to Holding Company Act Release No. 2740, dated May 3, 1941, Southern Natural Gas Company has filed a declaration with the Securities and Exchange Commission regarding the proposed sale of \$13,000,000 of first mortgage pipe line sinking fund 3 $\frac{1}{4}$ % bonds, due 1956, and \$4,500,000 of 2 $\frac{1}{2}$ % serial notes, due 1942-47, and, in addition, 234,868 shares of \$7.50 par common stock. The release indicates that the company proposes to apply the proceeds from the above financing to the retirement of the 4 $\frac{1}{2}$ % bonds, due 1951, which were publicly offered in 1936; a small issue of 4 $\frac{1}{2}$ % bonds, due 1952, which was privately sold in 1937; the entire issue of 6% adjustment mortgage bonds; and indebtedness of \$450,000 on an outstanding 4% collateral note. The balance of the proceeds is proposed to be added to general funds.

The last group of issues on Schedule 5-A consists of first mortgage 6 $\frac{1}{2}$ % bonds, due 1939, of Southern Gas Utilities, Inc. (assumed by United Gas Pipe Line Company) and a 6% first mortgage bond issue and a 6 $\frac{1}{2}$ % debenture issue of Houston Gulf Gas Company, a subsidiary of United Gas Pipe Line Company. The latter company assumed the bonds of Southern Gas Utilities, Inc., in connection with the acquisition, following its organization in 1937, of all of the field gathering lines, main pipe lines, compressor stations, and natural gasoline plants, of United Gas Public Service Company and its subsidiaries, except those  
92 of Houston Gulf Gas Company. After the divorcement from United Gas Public Service Company of the above properties, the company was merged with United Gas Corporation, which is the parent of United Gas Pipe Line Company. The 6 $\frac{1}{2}$ % bonds of Southern Gas Utilities, Inc., were redeemed in September 1938 prior to maturity. The bonds and debentures of Houston Gulf Gas Company, rated Ba and B, respectively, were sold at progressively declining yields during the years 1937-1940 and the 6% bonds, due 1943, were selling in 1940 above par to yield 5.00%, while the 6 $\frac{1}{2}$ % debentures, due 1943, were also selling above par to yield 5.82%.

It is reported that the bonds and debentures of Houston Gulf Gas Company were called for redemption in October 1940, in connection with proposed refunding operations by United Gas Corporation. The Commercial and Financial Chronicle (issue

of May 10, 1941, p. 3040) reports that United Gas Corporation has filed application under the Holding Company Act regarding the proposed private sale of \$75,000,000 of 3½% first mortgage and collateral trust bonds, due 1958. In connection with such financing, it is indicated that Houston Gulf Gas Company will sell \$5,400,000 of first mortgage 4% bonds, due 1961, to its parent, United Gas Pipe Line Company, and use the proceeds to discharge a like amount of indebtedness evidenced by a 2½% note held by First National Bank of Boston. The proceeds from the latter note apparently had been applied by Houston Gulf Gas Company to the redemption of its 6% bonds and 6½% debentures which are listed in Schedule 5-A. It is reported that Houston Gulf Gas Company will also issue an additional \$1,300,000 of first mortgage 4% bonds, due 1961, in exchange for its \$1,300,000 7% income note held by United Gas Pipe Line Company.

From the foregoing comments on the data presented in 93. Schedule 5-A with respect to yields on bonds of natural gas companies and the sequence of refunding operations conducted by each of the companies listed, with the single exception of North Penn Gas Company, it is readily apparent that the declining trend of interest rates and bond yields in recent years, to which attention has previously been directed, has exerted a strong influence upon the yields demanded by investors on bonds and other debt of natural gas companies. Without important exception, interest rates and yields on presently outstanding debt of such companies, or on bonds and other debt proposed to be issued in connection with which declarations have been filed, are at lower levels than ever before witnessed in the history of natural gas companies such as those listed in Schedule 5-A.

It may be noted that the total shown in Schedule 5-A under the column "Held by Public," \$99,351,523, is in agreement with the total for bonds, debentures and notes held by the public indicated in the summary at Page 8 of Schedule 5.

*Schedules 5-B and 5-C.*—These schedules show the individual holdings by institutions and affiliates, respectively, of bonds, notes and debentures of the companies included in Schedule 5.

*Schedule 5-D.*—Schedule 5-D contains substantially similar information with respect to preferred stock of the companies listed in Schedule 5 which are held by the public as was shown in Schedule 5-A for bonds and debentures and notes of such com-



panies. However, Moody's publications do not assign ratings to capital stock issues; therefore, only Poor's ratings are given.

The schedule shows that 7 of the 43 companies listed in Schedule 5 had preferred stock issues outstanding in the hand 94 of the public during all or a portion of the period since 1937.

It will be seen that the entire issue of 7% preferred stock of El Paso Natural Gas Company is held by the public. Of the total amount of \$1,479,700, about \$600,000 par value appears to have been issued at date of organization in 1928 and the remainder through subsequent conversion of other securities. It is indicated that the stock has been selling above par during the entire period since 1937 and that at February 28, 1941, the bid price was equal to call price of 110, resulting in a yield of 6.36%. The dividend record on this stock indicates that dividends in arrears amounting to \$26.25 per share were cleared up on June 22, 1936, since which date dividends have been paid regularly.

The next issue shown in Schedule 5-D consists of \$50 par 7% preferred stock of Houston Natural Gas Corporation which appears to have been issued at organization of the company in 1928. The stock was selling somewhat below par in 1937 and 1938, but the market price subsequently improved and the average price was above par in 1939 and 1940. At November 30, 1940, the date of the most recent quotation available, the bid price of 55 equalled call price and the resulting yield was 6.36%.

Next in order is an issue of \$100 par 6½% preferred stock of Lone Star Gas Corporation. The aggregate par value of this stock outstanding as of December 31, 1937, was \$7,975,500. Funds for retirement of the entire issue and for other purposes were obtained from the sale in August 1938 of \$20,000,000 of 3½% convertible debentures due 1953, and \$11,300,000 of 27½% serial notes, due 1939-45. During 1937 and 1938, prior to its retirement, the preferred stock was selling above call price of 95 \$110 per share.

Next appear two issues of preferred stock of Montana-Dakota Utilities Co. consisting of \$100 par stock with dividend rates of 5% and 6%, respectively. The two issues have equal preference as to assets and dividends. Neither series enjoyed a favorable market during the years 1937-1939 the market price in each instance being considerably below par throughout that period. However, by 1940 the market prices for both series had improved substantially over the 1937 level, although quotations



were still below par. At February 28, 1941, the market price for each series was the highest recorded during the four-year period, the 5% series being quoted at 90 to yield 5.56%, and the 6% series at 98½ to yield 6.09%.

The \$7 dividend prior preferred stock of North Penn. Gas Company consists of a small issue for which quotations could be obtained only for the year 1937. The yield in that year based on average market price of 89 was 7.87%. This stock has preference as to assets and dividends over an issue of \$7 dividend preferred stock all of which is held by affiliates.

The next group of preferred stocks listed in Schedule 5-D is comprised of three issues of Oklahoma Natural Gas Company. The first issue consists of \$100 par 6% convertible prior preference stock. This stock was issued in 1936 par for par in exchange for \$2,220,000 of the company's 5% notes, due 1936-41. The market price of the 6% stock was below par in 1937 and 1938, but in 1939 the stock was selling above par to yield 5.84%. In conjunction with certain refunding operations conducted in the latter part of 1939, as described in Note (d) of Schedule 5-D, the entire

issue of the 6% prior preference stock was retired, and the company sold 58,000 shares of \$5.50 no par convertible prior preferred stock. The new stock was offered publicly at a price of 104 to yield 5.29% to purchasers. The market price of the new stock remained above par following its issuance, resulting in yields of 5.02% in 1939 and 5.07% in 1940. At February 28, 1941, the stock was quoted at 3¾ points above call price of 110 to yield 4.84% to purchasers. The third issue listed for Oklahoma Natural Gas Company consists of \$50 par \$3 dividend preferred stock of which there are 91,055 shares outstanding, this stock having been issued in 1933 in exchange with holders of preferred stock of Oklahoma Natural Gas Corporation under the plan of reorganization of the latter company. From its low level of \$26 per share in 1937, the market price of this stock has gradually increased and at February 28, 1941, was equal to par value of \$50 per share. It should be noted that the \$3 dividend preferred stock is outranked with respect to preference as to assets and cumulative dividends by the \$5.50 prior preferred stock. It also appears that dividends on the \$3 dividend stock did not become cumulative until after January 1, 1939, and that the initial dividend on the stock was paid on March 15, 1939.

Pacific Lighting Corporation in May 1939 offered to exchange new \$5 preferred stock with holders of the Company's outstand-

ing \$6 preferred stock. The \$6 preferred stock had been issued over a period of years and there were outstanding 196,665 shares as of December 31, 1938. The \$6 preferred stock was selling above par in 1937 and 1938 to yield 5.84% and 5.79%, respectively. In 1939 up to date of retirement the average market price had exceeded call price of \$105 per share resulting in a yield of 5.63%. Holders of 161,081 shares of the company's \$6 preferred stock accepted the offer to exchange their holdings for \$5 preferred stock, and the remaining 38,919 shares of the 200,000 shares of \$5 preferred stock issued, were offered publicly at \$102 per share to yield 4.90%. Following the issuance of the \$5 preferred stock, the market price remained above par in 1939 and 1940. At February 28, 1941, the stock was quoted at 13 $\frac{1}{4}$  points above call price of 105 to yield 4.68%.

The last two preferred stocks listed in Schedule 5-D, are issues of Southern California Gas Company, a subsidiary of Pacific Lighting Corporation. Both issues consist of \$25 par 6% preferred stock, but the issues are distinguishable by the fact that the larger issue is identified as Series A stock. The generally lower market price associated with the Series A stock may be attributable to the fact that this stock as a class is entitled in liquidation merely to par value and accrued dividends in preference to the common stock, whereas the smaller issue of 6% preferred stock as a class has equal preference with the Series A stock in liquidation but is entitled, in addition to par value and accrued dividends, to share pro rata with common stockholders in the distribution of assets remaining after payment to common stock of its par value. Based on average market value the yield on the 6% preferred stock ranged from 4.84% in 1937 to 4.29% in 1940 and the yield on the Series A preferred stock declined from 5.12% in 1937 to 4.63% in 1940. At February 28, 1941, the 6% stock was quoted at 33, or one-fourth point below the price quoted for the Series A stock, resulting in yields of 4.55% for the 6% stock and 4.51% for the Series A stock. It will be noted that neither issue of preferred stock is subject to call.

It should be pointed out with respect to the data shown  
 98 Schedule 5-D that the indicated yields for the four preferred stock issues for which quotations are reported as being equal to or in excess of call price cannot be considered as representing the true yields for the respective issues. It is apparent that an investor purchasing preferred stock at a price

an excess of call price would be confronted with the risk that the issuing company may exercise its option to redeem the issue at a price less than that paid for the stock. Consequently, the fact that a certain issue of preferred stock is subject to redemption tends to prevent the price of the stock from rising much beyond the call price and, conversely, tends to maintain the yield on such stock at an artificially high level. The four preferred stocks currently quoted at prices at or above call price are the 6% issue of El Paso Natural Gas Company, the 7% issue of Houston Natural Gas Corporation, the \$5.50 dividend prior preferred issue of Oklahoma Natural Gas Company, and the \$5 dividend preferred issue of Pacific Lighting Corporation.

It will be noted that the amount of \$63,128,710 shown as the total of the column "Total Outstanding and Held by Public" in Schedule 5-D is in agreement with the amount designated as total preferred stock holdings by the public in the summary at page 8 of Schedule 5.

*Schedule 5-E.*—It is believed that Schedule 5-E, which shows individual holdings by affiliated interests of preferred stock of the companies listed in Schedule 5, requires no comment.

*Schedules 5-F1 and 5-F2.*—Schedule 5-F1 contains certain information relative to the common stock issues of the 13 companies listed in Schedule 5 which have common stock outstanding in the hands of the public. The schedule shows for each issue the name of the issuing company, the number of shares and book amount of common stock outstanding, the portion thereof held by the public, the par value, if any, and Poor's rating. Next are shown for the years 1937 to 1940, inclusive, the annual earnings per share, the averages of annual high and low market prices, and the earnings-price ratios, i. e., the per cent of earnings per share to market price, of the respective common stocks. Finally, there is shown for each issue an earnings-price ratio based on market price at February 28, 1941, and on earnings for latest year for which reported.

Schedule 5-F2 reflects, for each of the companies listed in Schedule 5-F1, annual operating revenues, together with annual earnings and dividends per share of common stock, during the year period 1926-1940, insofar as such data are available in publications generally accepted as reliable sources of information. Page 1 of Schedule 5-F2 contains the data on operating revenues, earnings and dividends by years set forth in columnar form under

appropriate captions. It will be noted that the date of incorporation appears immediately below the column headings applicable to the respective companies. A symbol immediately following the name of a company is keyed to an explanatory notation appearing on Page 2 of Schedule 5-F2. In certain instances it has been necessary, in computing earnings and dividends per share, to revise the reported figures retroactively to give effect to stock split-ups and stock dividends. Accordingly, for purpose of comparison, all data on earnings and dividends per share for the years preceding the year in which such changes occurred are based on the present common stock.

The earnings-price ratios of the respective common stock issues for the periods and on the basis indicated in Schedule 5-F1 100 are set forth in the following tabulation:

Company	Common stock earnings-price ratios				
	1937	1938	1939	1940	2-28-41
	Percent	Percent	Percent	Percent	Percent
Consolidated Gas Utilities Corp.....	3.78		11.70	17.75	17.14
El Paso Natural Gas Co.....	13.79	14.08	10.60	9.69	13.19
Houston Natural Gas Corp.....	11.10	14.35	18.77	25.40	20.44
Interstate Natural Gas Co., Inc.....	9.90	10.02	8.88	9.08	9.17
Lone Star Gas Corp.....	11.69	10.27	11.24	12.73	12.00
Memphis Natural Gas Co.....	16.63	13.96	15.74	15.75	14.80
Montana-Dakota Utilities Co.....	5.91	10.00	8.64	11.48	7.91
Mountain Fuel Supply Co.....	3.94	6.99	9.47	8.82	8.35
National Fuel Gas Co.....	6.10	6.36	7.52	9.69	9.60
Oklahoma Natural Gas Co.....	19.27	-16.19	12.17	21.20	19.77
Pacific Lighting Corp.....	9.27	10.90	7.84	7.54	8.50
Panhandle Eastern Pipe Line Co.....				11.74	11.66
Southern Natural Gas Co.....			18.14	19.51	21.30

Comments pertaining to the above earnings-price ratios and to data appearing in Schedule 5-F2 relative to each of the companies listed are presented below in the order of their appearance.

*Consolidated Gas Utilities Corporation.*—The earnings-price ratio of this company's common stock was 17.14% as of February 28, 1941, based on market price of \$1.75 per share and 1940 earnings of \$0.30 per share. The ratio was somewhat higher in 1940, at 17.75%, which compares with the ratios of 11.70% in 1939 and 3.78% in 1937. Operations in 1938 resulted in a net loss of \$0.47 per share; therefore no earnings-price ratio appears for that year. From information contained in Schedule 5-F2 it appears that the

ny was incorporated in 1935 to take over the business of predecessor pursuant to a plan of reorganization. The company therefore has an operating history of only five years, in two of which operations resulted in a net loss. No dividends have been paid on the common stock since its issuance.

*El Paso Natural Gas Company.*—The common stock of this company had an earnings-price ratio of 9.69% in 1940, which was somewhat lower than the ratio of 10.60% in 1939 but considerably lower than the ratios of 13.79% and 14.08% in 1937 and 1938, respectively. At February 28, 1941, the ratio was 12.19%, well above the ratio of 9.69% for 1940. From inspection of the data shown in Schedule 5-F2, it will be seen that earnings have increased from \$3.00 to \$3.75 between 1937 and 1939, declined to \$3.29 in 1940, as contrasted with increased earnings in 1940 reflected for a majority of the companies represented in Schedule 5-F2. The company's operating revenues have increased from \$1,197,795 in 1930 to \$6,380,311 in 1940. More than half of the increase in revenues, however, has occurred subsequent to 1936. The initial dividend on the common stock was paid in 1936, in that year the company disbursed \$26.25 per 7% preferred share, making up all arrears in preferred dividends from September 1, 1935, through June 1, 1936, since which date preferred dividends have been paid regularly. Beginning in 1937 the company has paid annual dividends amounting to \$2.00 per share on its common stock.

*Houston Natural Gas Corporation.*—The earnings-price ratio of this company's common stock increased from 11.10% in 1937 to 20.64% in 1940 and at February 28, 1941, was 20.64%. The company is a Texas corporation formed in 1940 which acquired the properties and assets of the Delaware corporation of the same name, including the assets of the latter's subsidiaries. The Delaware corporation had been organized in November 1928 as a holding company. Schedule 5-F2 discloses that consolidated operating revenues increased from \$1,578,218 in 1929 to \$3,128,613 in 1940, half of the increase having occurred subsequent to 1936. Earnings per common share have fluctuated considerably. From \$0.63 per share in 1935, earnings increased to \$1.72 in 1936 and to \$1.72 in 1937, but declined to \$1.22 in 1938. After earnings increased to \$1.83 per share in 1939 and to \$1.83 per share in 1940. The initial dividend on common stock was paid in 1936. From \$0.50 per share in 1936 (erroneously as \$0.75 in Schedule 5-F2) dividend payments on common



stock were increased to \$1.25 in 1937, reduced to \$0.80 in 1938 and to \$0.40 in 1939, and increased to \$1.20 in 1940. In 1937 the predecessor Delaware corporation distributed to common stockholders a stock dividend of 50% payable in common stock. Earnings and dividends per share for the years 1929-1936 prior to the stock dividend are shown in Schedule 5-F2 on the basis of the present common stock.

*Interstate Natural Gas Co., Inc.*—The earnings-price ratio of this company's common stock has fluctuated within a narrow range around 9.00% during the years 1937-1940, and was 9.17% as of February 28, 1941, based on market price of \$23 and earnings for the year 1939 of \$2.11 per share. The company was incorporated in 1926. Published figures show that its operating revenues increased from \$3,101,950 in 1933 to \$5,868,450 in 1939, the latest year for which information is available. The initial dividend on the company's common stock was paid in 1930 and the company also paid common dividends in 1931, the amount paid in each year being \$0.25 per share. No common dividends were paid during the years 1932-1935, but in 1936 the company paid dividends of \$1.75 per share. Dividend payments were increased to \$2.00 per share in 1937, reduced to \$1.75 in 1938, and in the following two years amounted to \$2.00 per share. Earnings increased from \$0.35 per share in 1933 to \$2.50 in 1937, but declined to \$2.13 per share in 1938 and to \$2.11 in 1939.

*Lone Star Gas Corporation.*—This company's common stock earnings-price ratio has fluctuated between limits of 10.27% and 12.73% during the four-year period 1937-1940. At February 28, 1941, the ratio was 12.00% as compared with 12.73% in 1940. Earnings during the four-year period have likewise fluctuated, declining from \$1.14 per share in 1937 to \$0.88 in 1938, and increasing to \$0.98 in 1939 and to \$1.17 in 1940. The company commenced operations in 1926 when it was organized to acquire control of Lone Star Gas Company. Operating revenues have increased from \$10,983,055 in 1926 to \$22,378,903 in 1940. Approximately forty percent of the indicated increase in revenues has occurred since 1935. Earnings and dividends per share for years prior to 1932 as shown in Schedule 5-F2 have been computed on the basis of giving effect to the 1929 stock split-up and the 1931 stock dividend described on Page 2 of Schedule 5-F2. Common stock earnings during the years 1926-1930 were generally higher than those since recorded and ranged from \$1.13 to \$1.58 per share in that period. During the depression years



ings declined to \$0.53 per share but increased to \$1.02 per share by 1936 and, as stated above, were \$1.17 per share in 1940. Common dividends have been paid regularly since 1926 but the amounts paid fluctuated considerably during the ten-year period ending in 1935. Dividends subsequently paid amounted to \$0.60 per share in the three years 1936-1938 and to \$0.70 per share in 1940.

*Memphis Natural Gas Company.*—The earnings-price ratio reflected for this company's common stock during the years 1937-1940 has ranged from 13.96% to 16.63%, and was 14.90% at February 28, 1941. Earnings per share during years 1938-1940 did not vary appreciably but were at a lower level than in 1937 when earnings of \$0.78 per share were the highest reported since inception of the company. The company suspended operations in 1928 and in 1931 reported earnings of \$0.36 per share. During the depression years earnings fell to a low level, being reported at amounts ranging from \$0.36 in 1932 to \$0.22 in 1935. The company paid the initial dividend on its common stock in 1930 and continued payments in the two succeeding years. No dividend payment was made in 1933, but dividends were resumed in 1934 and have been paid regularly since.

Annual dividend payments amounted to \$0.10 per share in 1934 and 1935, \$0.50 in 1936 and \$0.60 in 1937. The amount was reduced to \$0.45 in 1938, but was increased to \$0.50 in 1939 and to \$0.55 in 1940.

*Montana-Dakota Utilities Co.*—The common stock earnings-price ratio of this company was 7.91% as of February 28, 1941, compared with percentages ranging from 5.91% in 1937 to 7.91% in 1940. Earnings in 1940 showed a substantial improvement over those in 1939, while the latter, in turn, were lower than 1937 and 1938 earnings. The company has been in existence since 1924, but its name was changed from Minnesota Northern Power Company to the present title in 1935, prior to which time the company was primarily a holding company. Published earnings figures on a comparable basis do not extend beyond 1933. However, the company's common dividend record for prior years shows that an initial dividend was paid in 1926, and that dividends were paid in increasingly larger amounts (after giving effect to an 8 for 1 stock split-up in 1928 and a 6 for 1 split-up in 1930) through 1931. No dividends were paid on common stock after January 1, 1932, until December 1937 when a dividend of \$0.10 per share was paid. Dividends on pre-

ferred stock were paid regularly through January 1, 1932, but none were paid thereafter through 1936 when arrearages were cleared up under a preferred stock readjustment settlement whereby 12,889 shares of 5% preferred stock were issued in full satisfaction of accrued dividends through January 1, 1937. Since the latter date preferred dividends have been paid regularly. Operating revenues have increased from \$3,357,676 in 1933 to \$4,984,994 in 1940. In 1933 and 1934 operations resulted in substantial net losses. Earnings thereafter increased from \$0.06 per share in 1935 to \$0.65 in 1937, declined to \$0.60 in 1938 and to \$0.54 in 1939, but increased to \$0.89 in 1940. Following the payment of \$0.10 on the common stock in 1937, the company paid dividends of \$0.32 per share in 1938, but lowered dividends to \$0.24 per share in 1939 and 1940.

*Mountain Fuel Supply Company.*—The current earnings-price ratio reflected for the common stock of this company, based on market price at February 28, 1941, is 8.35%. This ratio compares with percentages of 8.82% in 1940, 9.47% in 1939, 6.99% in 1938, and 3.94% in 1937. It will be noted that earnings have shown gradual improvement since 1937. As disclosed by data in Schedule 5-F2, however, 1937 earnings were lower than those in 1936. Prior to 1936 earnings were at relatively lower levels and operations resulted in net losses in two of the six years represented. The company was organized in 1935 as successor by consolidation and merger to Western Public Service Corporation (incorporated in 1928) and its subsidiaries. Operating revenues have increased from \$1,378,881 in 1930 to \$3,388,133 in 1940, approximately one-half of the increase having occurred subsequent to 1936. Dividends were first paid in 1933 in the amount of \$0.20 per share. The amount paid was reduced to \$0.10 in 1934 and 1935. Dividend payments amounted to \$0.25 in each of the three years 1936–1938, but were increased to \$0.35 in 1939 and to \$0.40 in 1940.

*National Fuel Gas Company.*—This company's common stock earnings-price ratio ranged from 6.10% in 1937 to 9.69% in 1940 and was 9.43% as of February 28, 1941. During the four-year period the company's earnings were lowest in 1938, at \$0.83 per share, and highest in 1940, at \$1.12 per share. Inspection of Schedule 5-F2 discloses that operating revenues during the years 1926–1930 were at a higher level than any since reported. For example, operating revenues amount to \$19,418,690 in 1926, but were reported at \$15,750,559 in 1935, and ranged from \$14,713,000

1936 to \$13,189,292 in 1938, and by 1940 had risen to \$15,591,937, which amount was still below the total recorded in 1935. The company's earnings record reflects a similar situation, with earnings averaging approximately \$1.50 per share in the years 1926-1930, \$1.15 in the years 1931-1935, and \$1.00 in the years 1936-1940. The company's dividend record has been more consistent, dividends of \$1.00 per share having been paid in each year of the 15-year period, with the exception of the years 1926 and 1935, when dividends of \$0.80 and \$1.35 per share, respectively, were paid. The company, which was incorporated in 1902, made its initial dividend payment in 1909 and since that time has paid dividends annually. In addition to paying cash dividends, the company declared a 100% stock dividend in 1922. The common stock was changed from \$100 par to no par in 1927, 10 shares of no par stock being issued in exchange for each share of \$100 par stock held. Earnings and dividends for the years 1926 and 1927 have been computed on the basis of the present common stock.

*Oklahoma Natural Gas Company.*—The earnings-price ratio for this company's common stock has varied considerably during the years 1937-1940. From 19.27% in 1937, the ratio declined to 19% in 1938 and to 12.17% in 1939, but increased to 21.20% in 1940. At February 28, 1941, the ratio, based on earnings for the twelve months ended December 31, 1940, was 19.73%. Ratios for the years 1937 to 1940, inclusive, are computed on the basis of fiscal-year earnings. As stated in Note (g) of Schedule 5-F1, the company's fiscal year was changed from the year ended November 30 to the year ended August 31, effective in 1939. It will be noted that during the four-year period 1937-1940, earnings per common share declined from \$2.06 in 1937 to \$1.70 in 1938 and amounted to \$1.75 in 1939, but increased substantially in 1940, the earnings for the fiscal year ended August 31, 1940, being reported at \$3.71 per share. Earnings reported for the twelve months ended December 31, 1940, amounted to \$4.02 per share. As indicated in Note (i) of Schedule 5-F2 that the company was organized in 1933 as the successor through reorganization to the business and property of Oklahoma Natural Gas Corporation. Since 1933 operating revenues have increased from \$6,575,598 in 1933 to \$9,421,698 in 1940, the increase in 1940 alone amounting to \$1,200,000. Earnings commencing in 1934 at \$0.07 per share, earnings increased to \$0.88 in 1935, and to \$0.95 in 1936, since which year, as above indicated, earnings have risen to a substantially higher level. The

company paid common dividends for the first time in 1939. 108 In that year the amount paid was \$1.00 per share, which was increased to \$1.10 in 1940.

*Pacific Lighting Corporation.*—Following 1938 when the earnings-price ratio of this company's common stock, at 10.90%, reflected an increase over the previous year's ratio of 9.27%, the ratio declined to 7.84% in 1939 and to 7.54% in 1940. In 1941 the current ratio, based on market price of the common stock at February 28, 1941, was 8.58%. It will be noted that earnings, which amounted to \$4.10 per share in 1937, increased to \$4.18 per share in 1938, but declined to \$3.60 in 1939 and had fallen to \$3.13 in 1940. From inspection of Schedule F2 it will be seen that annual operating revenues were at a level of approximately \$45,000,000 during the three years, 1938-1940. Operating revenues in the peak year, 1936, amounted to \$51,000,000. However, it should be noted that 1936 was the last full year of operation of the Los Angeles Gas & Electric Corporation, a subsidiary whose electric properties, which produced operating revenues of approximately \$9,000,000 in 1936, were sold to the City of Los Angeles in May 1937. In the five years 1926-1930 earnings averaged \$3.71 per share; in the five years 1931-1935, \$3.39 per share; and in the last five years of the fifteen-year period 1926-1940 average earnings rose slightly above the 1926-1930 level to \$3.78 per share. The company, which was incorporated in May 1907 as the successor to Pacific Lighting Company (incorporated in 1886), has maintained a continuous record of common dividend payments since 1909. In addition to cash dividends on its common stock, the company declared stock dividends of 10% in December 1922 and 80% in December 1924 payable in common stock. Since 1928 the company has paid annual dividends of \$3.00 per share on its common stock, except in 1935 and 1936, when amounts of \$2.40 and 109 \$2.85, respectively, were paid, and in 1937, when the amount paid was \$3.50 per share. In 1927 the common stock was changed from \$100 par to no par and 10 no par shares were exchanged for each \$100 par share held. Earnings and dividends per share for the year 1926 and 1927 have therefore been computed on the basis of the present common stock.

*Panhandle Eastern Pipe Line Company.*—None of the common stock of this company was held by the public prior to September 1939. Accordingly market quotations have been available only since that time. Based on average market price for the remainder

1939 the earnings-price ratio for that year was 9.61%. This increased to 11.74% in 1940 and was 11.65% as of February 1941. Reference to Schedule 5-F2 discloses that the company incorporated in 1929 as Interstate Pipe Line Company, the present title having been adopted in 1930. Operating revenues showed a moderate increase from \$3,048,518 in 1934 to \$3,611,865 in 1935, but increased by \$2,400,000 in 1936. This increase is attributable to the fact that the company on July 9, 1936, commenced delivery of natural gas to Detroit, Michigan, under a contract with Michigan Consolidated Gas Company (formerly Detroit City Gas Company). Thereafter operating revenues continued to increase and in 1940 aggregated \$13,535,453, which represents an increase since 1937 of approximately \$4,000,000. Schedule 5-F2 discloses that in 1934 and 1935, prior to commencement of natural gas deliveries to Detroit, the company's operations resulted in substantial net losses. However, in 1936 the company reported net earnings of \$1.44 per share, and earnings increased to \$3.57 per share in 1937. A considerable decline in earnings occurred in 1938, in which year earnings amounted to \$2.84 per share. In 1939 earnings reported at \$3.82 per share exceeded the 1937 amount, and in 1940 earnings increased to \$3.99 per share. The initial dividend on the company's common stock was paid in 1937. Following the payment of \$0.50 per share in that year, common dividends were increased to \$2.25 in 1938, reduced to \$1.50 in 1939 and increased to \$3.00 in 1940. It will be seen from Note (k) of Schedule 5-F2 that Panhandle Eastern Pipe Line Company has outstanding two issues of \$6.00 par value preferred stock. One issue consists of 10,000 shares of Class B nonparticipating preferred stock. The second issue is represented by 100,000 shares of Class A participating preferred stock. By reference to Schedule 5-E it will be found that both classes of preferred stock issues are held by Columbia Oil & Gasoline Corporation, which company and Missouri-Kansas Pipe Line Company together own 92.13% of the outstanding common stock of Panhandle Eastern Pipe Line Company, as shown on Page 5 of Schedule 5-G. Dividends on both classes of preferred stock become cumulative after January 1, 1936. Dividends thereon paid in 1937 included \$6.00 per share in full payment of arrears for 1936. With respect to the Class A participating preferred stock it is provided that after common stock has received \$1.50 per share and Class A preferred stock \$6.00 per share in dividends, the holders of Class A stock are entitled to participate with holders of common stock.



of common stock in any further distribution of earnings in the proportion of 25% to Class A preferred stock as a class and 75% to common stock as a class. The earnings per common share reflected in Schedules 5-F1 and 5-F2 are computed after giving effect to the participating feature of the Class A preferred stock.

It should be noted in this connection that a portion of the  
 111 common dividends paid by Panhandle Eastern Pipe Line Company in 1938 and 1940 constituted participating dividends under the above provision. For example, in those years, after dividend payments of \$1.50 per share to common stock and \$6.00 per share to Class A preferred stock, participating dividends of \$0.75 in 1938 and \$1.50 in 1939 were distributed on the common stock. The aggregate amounts of such participating common dividends were \$546,489 in 1938 and \$1,211,051 in 1940; consequently Class A preferred stock received participating dividends aggregating \$182,163 in 1938 and \$403,683 in 1940, equal to \$1.82 and \$4.04 per share, respectively, on the 100,000 shares of Class A preferred stock outstanding. The years 1938 and 1940 are the only years in which the company has paid participating dividends.

*Southern Natural Gas Company.*—The present \$7.50 par common stock of this company has been outstanding only since May, 1939 when it was issued in exchange with holders of the company's formerly outstanding Class A and B common stocks. The exchange was made on the basis of one share of new stock for each share of Class A stock held and one-half share of new stock for each share of Class B stock held. Based on average market price during the period in 1939 following its issuance, the earnings-price ratio of the new common stock was 18.14% in that year, increased to 19.51% in 1940, and was 24.38% as of February 28, 1941. It will be noted that earnings amounted to \$2.01 per share in 1937 and declined to \$1.49 in 1938, but increased to \$2.55 in 1939 and to \$3.17 in 1940. The company paid its initial dividend in 1936 when a dividend payment of \$0.80 per share on the former Class A stock was made. In 1937 a dividend of \$0.25 was paid on the former Class B stock. No  
 112 further dividends were paid on the Class B stock, but subsequent dividend payments on the Class A stock amounted to \$1.20 in 1937 and \$0.50 in 1938. Dividends amounting to \$1.25 per share were paid in 1939 and 1940 on the new \$7.50 par common stock. As indicated in Note (1) of Schedule 5-F2, the company was organized in 1935 to acquire the



properties of its predecessor, Southern Natural Gas Corporation (incorporated in 1928), pursuant to a plan or reorganization.

The foregoing historical analysis of operating revenues, earnings, and dividend payments of individual companies discloses the following facts with respect to the 13 companies represented on Schedules 5-F1 and 5-F2:

1. One company has paid no dividends on common stock since inception;
2. Three companies did not commence payment of common dividends until 1936; one until 1937; and one until 1939;
3. Three companies paid lower dividends in 1939 than in 1938;
4. Five companies ceased the payment of dividends altogether during the depression years or made substantially reduced dividend payments;
5. Preferred dividends of three companies were in arrears during the depression years;
6. Three companies were organized to take over the properties of predecessor companies which had been placed in receivership;
7. Common stock earnings of three companies were lower in the latest year for which reported than in the preceding year;
8. Common stock earnings of two companies, which have been in existence since 1926, reflect a decline in average earnings for the five years 1936-1940 as compared with the five years 1926-1930;
9. Operating revenues of two companies, which have been in existence since 1926, were lower in 1940 than in 1930.

In the following tabulation the above numbered paragraphs are keyed to the respective companies to which reference is made therein by the symbol "X" appearing below the paragraph number:

Company	Paragraph number								
	1	2	3	4	5	6	7	8	9
Consolidated Gas Utilities Corp.	X					X			
Gas Natural Gas Co.		X (1936)			X		X		
Gas Natural Gas Corp.		X (1936)	X						
State Natural Gas Co., Inc.				X			X		
Star Gas Corp.				X				X	
Ohio Natural Gas Co.				X					
Arizona-Dakota Utilities Co.			X	X	X				
Mountain Fuel Supply Co.				X					
Central Fuel Gas Co.									
Indiana Natural Gas Co.		X (1939)				X		X	X
Electric Lighting Corp.							X		X
Midland Eastern Pipe Line Co.	X (1937)		X		X				
Western Natural Gas Co.	X (1936)					X			

The above tabulation illustrates some of the factors which may influence investor appraisal of risk in connection with the purchase of common stock. The fluctuations noted in annual earnings-price ratios of the common stocks listed in Schedule 5-F1 during the period since 1937 may have been occasioned by one or more of these or other factors.

The foregoing comments indicate that caution must be exercised in appraising the significance of the earnings-price ratios exhibited for the above group of common stocks of natural gas companies. It also appears that the propriety of employing such earnings-price ratios in connection with the problem of a fair rate of return for Hope Natural Gas Company would be doubtful if consideration were not given to comparative analyses of operating revenues, earnings, and dividends, as well as to other factors indicative of the degree of risk confronting the enterprise.

*Schedule 5-G.*—This schedule contains a list of the individual holdings by affiliates of common stock of the natural gas companies listed in Schedule 5. None of such common stock is held by institutions, except that as will be noted by reference to Page 1 of Schedule 5, an amount of \$451,697 of the common stock of Godfrey L. Cabot, Inc., was held by three educational institutions.

*Schedule 6.*—Schedule 6 contains a compilation of bond issues sold by the natural gas companies listed in Schedule 5 during the period from January 1, 1935, to March 31, 1941, inclusive. The issues are grouped according to Moody's ratings, and for each issue there appear the name of the issuing company, the approximate offering date, a description of the issue, principal amount of the offering, net price and cost to company, and price and yield to public. In addition, the schedule shows the distribution of holdings of issues presently outstanding, i. e., whether held by the general public, or by institutional investors.

Under "Net Price to Company" are shown the net proceeds to the company per \$100 of principal amount after underwriters' commissions and other expenses and in the adjoining column a percentage representing the annual cost of the funds borrowed calculated to maturity. Under "Price to Public" are shown the selling price to the public and in the adjoining column a percentage representing the annual yield to purchasers calculated to maturity.

All but two of the issues shown in Schedule 6 have been referred to in the preceding comments pertaining to the data con-

ained in Schedule 5-A. The issue of Mississippi River Fuel Corporation not previously described, which is the first issue listed in the lower section of Schedule 6 covering bonds privately sold, consists of \$10,000,000 of first mortgage 4% bonds, due 1952. These bonds were sold privately in February 1937 at an assumed price of par, the proceeds having been used for redemption of the company's previously outstanding first mortgage 6% bonds, due 1944. As of December 31, 1940, \$7,665,000 principal amount of this issue was outstanding, the entire amount being held by institutions.

The second issue not previously described consists of \$16,000,000 of first mortgage 3¼% bonds, due 1954, of Northern Natural Gas Company, which were sold privately in August 1939 at par to the group of insurance companies identified on Page 5 of Schedule 5-B. The proceeds from the sale of the 3¼% bonds were applied to the retirement as of August 1, 1939, of the company's outstanding first mortgage 4¾% bonds, due 1947, Series A (\$11,120,000); first mortgage 4¼% bonds, due 1947, Series B (\$1,454,000), and 4½% debentures, due 1948 (\$2,930,000). The 3¼% Series A bonds and the 4¼% Series B bonds, both due 1947, in the principal amounts of \$16,000,000 and \$2,000,000, respectively, had been sold privately in July 1935 to four insurance companies, the proceeds being used to retire bank loans and to provide additional capital for construction. The 4½% debentures, due 1948, in the principal amount of \$3,000,000, had been sold privately in July 1938, it being reported that the proceeds were used for general corporate purposes.

By inspection of Schedule 6 it will be seen that a considerable proportion of the bonds sold by the companies listed in Schedule 6 during the period shown has been purchased by institutions, which affords an indication of the investment quality of the bonds of the natural gas companies represented. In addition, it will be observed that the ratings assigned to a majority of the bond issues of such companies which have been publicly offered fall within the Baa to Aa groups. However, it is of interest to note that in numerous instances the yield at which the issues shown in Schedule 6 have been sold is lower than the company's public utility bond yield average in the month of sale or the rating group in which the issue falls, as indicated below:

Rating	Company	Offering date	Issue	Yield to public	Moody yield
				Percent	
A.....	Lone Star Gas Corp.....	Aug. 1938	Deb., 3½%, 1953	3.33	14
A.....	Panhandle East, P. L. Co.....	Jan. 1941	1st Mtg., 3%, 1960	2.87	13
Baa	Oklahoma Nat. Gas Co	June 1936	1st Mtg., 4½%, 1951	4.64	42
Baa	Southern Nat. Gas Co.	Nov. 1936	1st Mtg., 4½%, 1951	4.50	42
Baa	Montana-Dakota U. Co	May 1939	1st Mtg., 4½%, 1954	4.41	42
Baa	Oklahoma Nat. Gas Co.	Aug. 1939	1st Mtg., 3¾%, 1955	3.46	43
Baa	Montana-Dakota U. Co	Jan. 1941	1st Mtg., 3½%, 1961	3.26	43

\* Moody's public-utility bond yield average in month of offering, per Schedule 4 of Volume II of this exhibit.

From Schedule 6 it will be observed that a characteristic feature of natural gas company bond issues, arising from the fact that the business of such companies is based on exploitation of a wasting resource, is their relatively short life to maturity. As will be noted by comparison of offering dates with maturities, the life of the issues generally does not exceed 15 years, whereas for electric utility bond issues the life is generally 25 or 30 years. For example, aside from the five debenture issues listed in Schedule 6, for which the period to maturity is 10 years in all but one instance, 16 of the mortgage bond issues shown have a life of 15 or 16 years. However, three issues have a life of 30 years, another of 20 years, and another of 19 years. The remaining five issues consist of mortgage bonds having short-term serial maturities.

Finally, it will be noted that in the majority of instances the bonds listed in Schedule 6 are indicated as having been issued under indentures containing provisions relative to sinking fund requirements with a view toward the gradual retirement of the bonds over the life of the issue. The provision for serial maturities in respect of the five issues mentioned above accomplishes the same purpose as a provision for redemption through sinking fund operations.

*Schedule 7.*—Schedule 7 is presented for the purpose of disclosing certain details with respect to the issuance, terms, and purpose of issuance of outstanding note issues of the natural gas companies listed in Schedule 5 which were held by institutions. The schedule shows for each note issue, in columnar form and under appropriate captions, the name of the issuing company, the approximate date of issuance, a description of the issue including date of maturity, the principal amount of the issue, the purpose

suance, the interest rate, the identity of the lending institution and the principal amount outstanding.

the purpose of the note issues which are indicated in the column "Purpose of Issuance" as having been issued for refunding purposes, and in connection with which there is a reference to Schedule 5 as being described in the preceding comments pertaining to Schedule 5-A.

It will be noted that the total amount of all outstanding notes shown in the last column of the schedule is an agreement with the amount indicated in the summary on Page 8 of Schedule 5 as representing notes held by institutions.

It is of interest to note that in many instances the companies have refunded previously outstanding mortgage debt debentures carrying higher rates of interest by means of short-term bank loans carrying low interest rates, and that in certain instances the loans have been made by groups of participating banks and insurance companies. In the majority of instances the notes have been issued for refunding purposes. However, in the case of Northern Natural Gas Company, a loan of \$10,000,000 was obtained for new capital purposes. The loan was financed by unsecured 2 1/8% promissory notes, due 1940-46, sold to the Chase National Bank of New York in August 1939. It was reported that the proceeds from the loan were to be used as follows: \$3,600,000 for construction of a 240-mile pipe line from Sioux City, Iowa, to Minneapolis; \$1,200,000 for compressor stations, property, lateral pipe lines, distribution system, properties, subsidiaries and development costs, all directly incidental to the pipe line; and \$1,200,000 to defray cost of additions and betterments to the company's existing property, including distribution systems of subsidiaries, etc.

*Schedule 8.*—This schedule presents data on preferred stock issues of the natural gas companies listed in Schedule 5 which were sold in the period 1935-1941. The issues represented include those of Oklahoma Natural Gas Company and Pacific Lighting Corporation and have been described in the preceding comments relating to Schedule 5-D.

*Schedule 9.*—In this schedule are presented certain details with respect to offerings of common stock either to stockholders or to the public by the natural gas companies listed in Schedule 5 during the period since 1935. Only three such offerings have been made, the issuing companies including El Paso



Natural Gas Company, Panhandle Eastern Pipe Line Company, and Southern Natural Gas Company.

There appear for each of the issues listed in Schedule 9 the name of the issuing company and description of the issue, the offering date, the number of shares offered, the amount of the offering, the price to underwriters, the offering price, the earnings per share for the most recent twelve-months' period reported on prior to the offering date, and the ratio of the earnings for such period to the offering price.

The first issue listed in Schedule 9 consists of 60,000 shares of \$3 par common stock of El Paso Natural Gas Company which were offered to the public in September 1936. As indicated in Note (a) of Schedule 9 the offering did not represent new financing by the company and the proceeds were not received by the company inasmuch as the shares constituted a portion of the company's outstanding common stock held by Engineers Public Service Company. The shares were sold to underwriters by the trustee for the latter company at a price of \$19 per share. The underwriters offered the shares to the public at a price of \$20 per share. On the basis of pro forma earnings of \$2.21 per common share for the twelve months ended June 30, 1936, the earnings-offering price ratio was 11.05%.

The next issue shown in Schedule 9 is one consisting of 80,000 shares of no par common stock of Panhandle Eastern Pipe Line Company. A distribution of rights to subscribe to these shares was made in September 1939 to stockholders of Missouri-Kansas Pipe Line Company (holder of 42.05% of the presently outstanding common stock of Panhandle Eastern Pipe Line Company) pursuant to a plan approved by the Court of Chancery for New Castle County, Delaware. The subscription warrants, which expired on October 27, 1939, entitled the holders thereof to purchase the stock at the subscription price of \$25 per share. Holders of such rights acquired 78,715 shares, leaving 1,285 shares unsubscribed. It is reported that the unsubscribed shares were the subject of litigation as the result of an action instituted in October 1939 against Panhandle Eastern Pipe Line Company and others by Missouri-Kansas Pipe Line Company and Lucille I. Dammann. Based on earnings of \$3.39 per share reported for the twelve months ended March 31, 1939, computed after giving effect to the participating feature of the company's Class A preferred stock, the earnings-offering price ratio of the common stock was 13.56%.



The last issue shown in Schedule 9 consists of 484,379 shares of \$50 par common stock of Southern Natural Gas Company which were offered for subscription by stockholders in January 1941 in the ratio of  $\frac{1}{4}$  of one share of each share held. Of the shares offered, Federal Water Service Corporation, as the holder of 52.31% of the company's stock, purchased 253,372 shares, and other holders of subscription warrants purchased 227,782 shares, resulting in a total of 481,154 shares subscribed and 3,225 shares unsubscribed. The subscription price was fixed at \$10 per share. On the basis of such price and earnings of \$2.89 per share for the twelve months ended August 31, 1940, the earnings-offering price ratio was 28.90%. It was reported that \$600,000 of the proceeds from the sale of common stock would be used to retire an equal amount of 2 $\frac{1}{2}$ % notes issued November 22, 1940, and that the company contemplated employing a substantial portion of the remaining funds for development of gas supplies, for construction of pipe lines to transport gas produced, for increasing the delivery capacity of its present system and for extensions to serve other markets.

*Standard Oil Company (New Jersey)—*

*Natural Gas Interests and Long-Term Financing.*

Chart 4.—The purpose of this chart is to show the identity of companies in the natural gas industry which are affiliated with Standard Oil Company (New Jersey). The chart discloses that Southern Natural Gas Company is a wholly owned subsidiary of Standard Oil Company (New Jersey), and that other wholly owned natural gas subsidiaries of the latter company include The East Texas Gas Company, The Peoples Natural Gas Company, Hope Construction & Refining Company, Hope Producing Company, and Mississippi River Gas Company. It will also be seen that Standard Oil Company (New Jersey) holds controlling interests of 81.70% in Lycoming United Gas Corporation and 53.96% in Interstate Natural Gas Co., Inc. Lycoming United Gas Corporation, in turn, is the parent of two wholly-owned natural gas subsidiaries, namely; New York State Natural Gas Corporation and Keuka Construction Corporation. In addition to the above interests, Standard Oil Company (New Jersey) holds substantial minority interests in Colorado Interstate Gas Company (42.50%), Mississippi River Gas Corporation (22.39%), and Natural Gas Pipeline Company of America (14.28%).

Domestic Coke Corporation, a nonnatural gas subsidiary of Standard Oil Company (New Jersey), is shown on the chart inasmuch as Hope Natural Gas Company, in its financial and statistical report to the Federal Power Commission for 1939 122 (F. P. C. Form No. 133), reported the purchase of 1,376,357

M C F. of manufactured gas from that company. Gas Companies, Inc., whose stock is owned in equal percentages by Hope Natural Gas Company, The East Ohio Gas Company, and The Peoples Natural Gas Company, is included for the reason that its function is that of a service organization for the natural gas subsidiaries of Standard Oil Company (New Jersey).

*Schedule 10.*—This schedule was prepared for the purpose of presenting certain details of the physical characteristics, location of properties and volume of natural gas transactions of the natural gas companies which are controlled by Standard Oil Company (New Jersey) or in which that company holds a substantial minority interest. The companies are segregated into four groups, each group comprising a different system, except that group IV includes the natural gas companies in which Standard Oil Company (New Jersey) holds a minority interest.

The information presented for each system consists of a general description of the system, the names of the companies included therein, the percent of voting power of each company directly held by Standard Oil Company (New Jersey), and statistical data pertaining to the individual companies. Such data include miles of pipe line operated, classified according to function (i. e., production, transmission, or distribution); number and location of gas wells; volume of natural gas produced, purchased and transported; and sales of natural gas to other gas utilities at wholesale, to industrial main-line customers, and to other domestic, commercial, and industrial customers at retail.

It should be mentioned that the data on pipe-line mileage and gas wells presented in Schedule 10 are given as of July 1, 123 1938, and the statistics on volume of gas transactions are given for the twelve months ended June 30, 1938. However, it is believed that the information presented will be useful for the purpose of indicating in a general way the importance of the natural gas systems of Standard Oil Company (New Jersey) from a national standpoint.

By inspection of Schedule 10 it will be seen that fourteen companies are listed therein. However, two of the companies have been merged with other companies in the group since 1938. As

cated in the schedule, the two companies referred to are Re Gas Company and Columbia Natural Gas Company. It will be seen that Lycoming United Gas Corporation has no properties, its function being that of a holding company. Consequently, only eleven of the fourteen companies represented in Schedule 10 are companies presently engaged in natural gas operations. It is of interest to note that of the eleven companies so listed, there are eight companies which are among the group of natural gas companies listed in Schedule 5, as follows: Hope Natural Gas Company; East Ohio Gas Company; Peoples Natural Gas Company; New York State Natural Gas Corporation; Interstate Natural Gas Co., Inc.; Mississippi River Fuel Corporation; Colorado Interstate Gas Company; and Natural Gas Pipeline Company of America.

Also of interest is the fact that the companies listed in Schedule 10 produced during the twelve months ended June 30, 1938, approximately 80,000,000 M C. F. of natural gas and in the same period, excluding duplications arising from intercorporate sales among the respective companies, sold approximately 275,000,000 M C. F. of natural gas for ultimate consumption. Although the 80,000,000 M C. F. of gas produced by the combined companies represented only 3.5% of the total natural gas production in the United States in 1938, the 275,000,000 M C. F. of gas sold by them for ultimate consumption represented in excess of 20% of the total amount of gas consumed in the United States in that year other than for field use and for manufacture of carbon black.

The companies listed in group I of Schedule 10 operate in West Virginia, Ohio, and Pennsylvania and deliver natural gas to approximately 714,000 customers in numerous cities of which Cleveland, Akron, Canton, Youngstown, and Marietta, Ohio; Pittsburgh and Altoona, Pennsylvania; and Clarksburg and Wheelersburg, West Virginia, are the largest. This group is the one of the four groups shown in Schedule 10 the members of which are engaged in retail distribution.

The only operating companies in group II are New York State Natural Gas Corporation and Keuka Construction Corporation, wholly owned subsidiaries of Lycoming United Gas Corporation. These companies operate in north central Pennsylvania and south central New York. Natural gas is produced and transported by these companies for sale to distribution systems and is used in several cities and towns in central New York of

which Syracuse, Auburn, Cortland, and Ithaca are the more important.

Group III consists of two companies; namely, Interstate Natural Gas Co., Inc., and Hope Producing Company. These companies operate production facilities in fields in northeastern Louisiana and a main transmission pipe line extending from the gas fields through Louisiana and across Mississippi to Baton Rouge, Louisiana.

Group IV includes companies in which Standard Oil 125 Company (New Jersey) holds a minority interest. They are all important natural gas pipe-line companies and their operations are described in the Appendix to this Volume I of this exhibit. The companies include Mississippi River Fuel Corporation, Colorado Interstate Gas Company, and Natural Gas Pipeline Company of America.

*Schedule 11.*—In this schedule are presented certain details with respect to long-term financing by Standard Oil Company (New Jersey) since 1926. In November 1926, as indicated in Schedule 11, the company sold an issue of 5% debentures, due 1946, in the principal amount of \$120,000,000 at a price of 100½ to yield 4.96% to purchasers. In February 1935 three series of debentures aggregating \$37,000,000, due 1939–41, were sold at par to yield 3.25%, 3.50%, and 3.75%, according to maturity. In May 1936 an issue consisting of \$85,000,000 of 3% debentures, due 1961, was sold at a discount of 2 points below par to yield 3.12%. It is reported that \$55,000,000 principal amount of this issue was privately sold to Rockefeller Foundations. In July 1938, the company sold an issue of 2¾% debentures, due 1953, in the amount of \$50,000,000, and 1¾–2½% serial notes, due 1943–47, in the amount of \$35,000,000. The 2¾% debentures were offered at 99 to yield 2.83%, and the serial notes were sold at par. The latter serial notes were refunded in July 1940 with proceeds from the sale at par of \$35,000,000 of 1¼–1½% serial notes, due 1943–47.

CHARLES W. KNAPP, Jr.,

Charles W. Knapp, Jr.,

*Principal Examiner of Accounts.*

WASHINGTON, D. C., May 26, 1941.

# Relation of Net Profit to Total Invested Capital for Leading American Industrial, Utility and Railroad Corporations

[Unit: \$1,000,000]

	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
<i>400 leading industrial corporations</i>													
Total invested capital.....	\$23,114	\$26,559	\$28,743	\$29,367	\$28,050	\$26,049	\$25,632	\$24,902	\$24,701	\$25,150	\$26,182	\$26,588	\$26,900
Net profit.....	\$2,187	\$2,836	\$3,251	\$1,949	\$825	\$250	\$798	\$1,122	\$1,583	\$2,278	\$2,538	\$1,363	\$2,023
Percent of net profit to total invested capital.....	8.7	10.7	11.3	6.6	2.9	1.0	3.1	4.5	6.4	9.1	9.7	5.1	7.5
<i>21 leading utility corporations</i>													
Total invested capital.....	\$6,605	\$7,470	\$8,119	\$8,929	\$9,339	\$9,231	\$9,113	\$8,761	\$8,778	\$8,522	\$8,525	\$8,690	\$8,664
Net profit.....	\$447	\$526	\$587	\$604	\$588	\$514	\$482	\$443	\$402	\$473	\$467	\$440	\$464
Percent of net profit to total invested capital.....	6.7	7.0	7.2	6.8	6.3	5.6	5.3	5.1	5.3	5.5	5.5	5.1	5.4
<i>78 leading railroad corporations</i>													
Total invested capital.....	\$18,747	\$19,202	\$19,844	\$20,252	\$20,758	\$20,028	\$19,741	\$19,392	\$18,895	\$18,743	\$18,784	\$18,351	\$17,893
Net profit.....	\$1,082	\$1,153	\$1,269	\$990	\$638	\$402	\$556	\$543	\$560	\$581	\$609	\$424	\$598
Percent of net profit to total invested capital.....	5.8	6.0	6.4	4.9	3.3	2.3	2.8	2.8	3.0	3.6	3.2	2.3	3.3

## Notes:

Total invested capital—includes funded debt, preferred and common stock, capital reserves and surplus.  
 Net profit—represents the amount available for fixed charges after depreciation; etc.

Source of above:

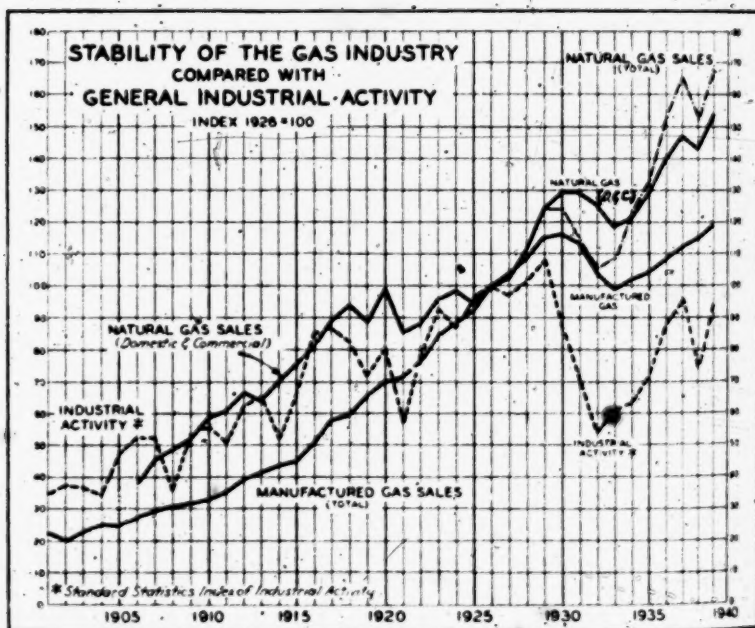
Standard Trade and Securities (published by Standard Statistics Co., Inc.), volume 6, number 9, section 2, dated Sept. 1940.

[Page 79 to 95 omitted.]

# EXHIBIT NO. 82-B, RATE OF RETURN, VOLUME III, F. P. C. WITNESS KNAPP

[Pages 1 to 4 omitted]

## CHART NO. 3, STABILITY OF GAS INDUSTRY



Source: Annual Statistics of the Natural Gas Industry in 1939, Statistical Bulletin No. 41, October, 1940, Page No. 4, issued by the American Gas Association.

[Pages 6 to 42 omitted.]



MOODY'S Aa RATING

[Cost of money to issuing companies and yield to public]

Source of data	Company	Approximate offering date	Issue	Principal amount	Net price to company		Price to public		Held by—		Date called
					Amount	Cost, per cent	Amount	Yield, per cent	Public	Institutions	
(1)	Southern California Gas Co. (subsidiary of Pacific Lighting Corp.).	July 1935	First & Ref. Mtg. 4%, 1965	\$15,000,000	\$98.09	4.11	\$101.50	3.91			Nov. 1, 1940 (a)

MOODY'S Aa RATING

(1)	Southern California Gas Co. (subsidiary of Pacific Lighting Corp.).	Sept. 1940	First Mtg. S. F., 3 1/4%, 1970	\$30,000,000	\$101.13	3.19	\$103.50	3.07	\$30,000,000	(b)	
(2)	Southern Counties Gas Company of California (subsidiary of Pacific Lighting Corp.).	Jan. 1941	First Mtg. S. F., 3%, 1971	11,500,000	(b)	(c)	101.80	2.95	11,500,000	(b)	
				41,500,000							

*Bonds of natural gas companies sold in period from January 1, 1935 to March 31, 1941—Continued*

MOODY'S A RATING

[Cost of money to issuing companies and yield to public]

Source of data	Company	Approximate offering date	Issue	Principal amount	Net price to company		Price to public		Held by—		Date called
					Amount	Cost, per cent	Amount	Yield, per cent	Public	Institutions	
(1)	Pacific Lighting Corporation.	Oct. 1935	S. F. Debentures, 4½%, 1945.	\$10,000,000	\$98.17	4.86	\$100.00	4.50			Apr. 5, 1936 (l).
(1)	Arkansas Louisiana Gas Co.	July 1936	First Mtg. S. F., 4%, 1951.	10,000,000	93.29	4.62	98.00	4.18			Oct. 30, 1939 (d).
(1)	Panhandle Eastern Pipe Line Co.	Mar. 1937	First Mtg. S. F., A, 4%, 1952.	24,000,000	95.02	4.46	97.50	4.23			Mar. 5, 1941 (f).
(1)	Lone Star Gas Corp.	Aug. 1938	S. F. Conv. Debentures, 3½%, 1953.	20,000,000	99.36	3.56	102.00	3.33			Mar. 1, 1941 (e).
(1)	Arkansas Louisiana Gas Co.	Sept. 1939	First Mtg. B, 3½%, 1945-54.	9,700,000	99.20	3.59	100.00	3.50		\$9,700,000	
(2)	Panhandle Eastern Pipe Line Co.	Jan. 1941	First Mtg. & First Lien, S. F., B, 3%, 1960.	12,000,000	(c)	(c)	102.00	2.87	\$12,000,000	(b)	
				\$85,700,000							

(1) Oklahoma Natural Gas Co.	June 1936	First Mtg. S. F., A, 4½%, 1931	\$20,000,000	\$94.89	4.99	\$98.50	4.64	Sept. 22, 1939 (f).
(1) Southern Natural Gas Co.	Nov. 1936	First Mtg. P. L. S. F., 4½%, 1931.	15,000,000	96.29	4.85	100.00	4.50	\$5,961,000
(1) Montana-Dakota Utilities Co.	May 1939	First Mtg. S. F., 4½%, 1934	9,000,000	96.01	4.88	101.00	4.41	Feb. 8, 1941 (g).
(3) Oklahoma Natural Gas Co.	Aug. 1939	First Mtg. S. F., B, 3¼%, 1935	17,000,000	100.88	3.68	103.50	3.46	7,946,000
(1) Houston Natural Gas Corp.	Sept. 1940	First Mtg. S. F., 4½%, 1935	3,500,000	93.19	4.44	100.00	4.00	3,500,000 (b)
(2) Montana-Dakota Utilities Co.	Jan. 1941	First Mtg. 2½% Serial, 1942-49	2,500,000	(c)	(c)	Various	0.63-2.25	2,500,000 (b)
(2) Montana-Dakota Utilities Co.	Jan. 1941	First Mtg., S. F., 3¼%, 1941	7,500,000	(c)	(c)	103.50	3.26	7,500,000 (b)
			74,500,000					

## MOODY'S Ba RATING

(1) El Paso Natural Gas Co.	June 1936	First Mtg. S. F., A, 4½%, 1931	\$7,500,000	\$94.14	5.06	\$98.50	4.64	Jan. 16, 1939 (h).
(1) Oklahoma Natural Gas Co.	do	Conv. Debentures, 5½%, 1946	10,000,000	95.72	5.56	100.00	5.00	Oct. 7, 1939 (i).
			17,500,000					

## MOODY'S B RATING

(1) El Paso Natural Gas Co.	June 1936	Conv. Debentures, 4¼%, 1946	\$3,750,000	\$95.16	5.38	\$100.00	4.75	Jan. 16, 1939 (h).
(1) Montana-Dakota Utilities Co.	Oct. 1936	Conv. Debentures, 4¼%, 1946	2,300,000	96.19	4.99	100.00	4.50	Jan. 1, 1941 (j).
			6,050,000					

*Bonds of natural gas companies sold in period from January 1, 1935 to March 31, 1941—Continued*

NO RATING ASSIGNED (ALL ISSUES PRIVATELY SOLD)

[Cost of money to issuing companies and yield to public]

Source of data	Company	Approximate offering date	Issue	Principal amount	Net price to company		Price to public		Held by—		Date called
					Amount	Cost, per cent	Amount	Yield, per cent	Public	Institutions	
(2)	Mississippi River Fuel Corp.	Feb. 1937	First Mtg. P. L. S. F., 4%, 1932	\$10,000,000	(c)	(c)	\$100,000	4.00		\$7,655,000	Jan. 16, 1939 (h)
(2)	El Paso Natural Gas Co.	Oct. 1937	First Mtg. S. F., B., 4%, 1932	1,200,000	(c)	(c)	97.75	4.20			
(2)	Southern Natural Gas Co.	do	First Mtg. P. L. S. F., 4½%, 1932	650,000	(c)	(c)	97.75	4.71		528,000	
(2)	Cities Service Gas Co.	Dec. 1938	First Mtg. P. L. 3¾%, 1947-54	20,000,000	(c)	(c)	100.00	3.75		20,000,000	
(2)	El Paso Natural Gas Co.	do	First Mtg. S. F., 3½%, 1933	6,000,000	(c)	(c)	99.00	3.59		6,000,000	
(1)	Northern Natural Gas Co.	Aug. 1939	First Mtg. S. F., A., 3¼%, 1954	16,000,000	\$98.84	3.35	100.00	3.25		16,000,000	
(1)	Arkansas Louisiana Gas Co.	Sept. 1939	First Mtg. A., 2¾%, 1940-41	3,300,000	99.20	3.01	100.00	2.75		3,300,000	
(2)	El Paso Natural Gas Co.	June 1940	First Mtg. S. F., 3%, 1935	2,500,000	(c)	(c)	98.50	3.13		2,900,000	Feb. 8, 1941 (g)
(2)	El Paso Natural Gas Co.	July 1940	First Mtg. S. F., 3%, 1935	500,000	(c)	(c)	98.50	3.13			
(3)	Montana-Dakota Utilities Co.	do	First Mtg. S. F., 4½%, 1936	1,200,000	101.06	4.40	104.00	4.16			
(2)	Panhandle Eastern Pipe Line Co.	Jan. 1941	First Mtg. & First Lien, A., 105-2.30%, 1946-50	6,250,000	(c)	(c)	100.00	1.05-2.30		6,250,000	
				67,000,000							
	Total			307,850,000							

Note.—See Page 2 for Sources of Data and Notes.

U. S. DEPT. OF COMMERCE

*Long-term financing by Standard Oil Co. (New Jersey)*

Issue	Date of offering	Amount	Offering price	Yield to purchasers, percent
Bonds, Gold, 3%, 1946	November 1926	\$120,000,000	100½	4.96
Debentures, Series A, 3¼%, 1939	February 1935	12,334,000	100	3.25
Debentures, Series B, 3¼%, 1940	February 1935	12,334,000	100	3.50
Debentures, Series C, 3¼%, 1941	February 1935	12,332,000	100	3.75
Bonds, 3%, 1961	May 1936	85,000,000	98	3.12
Bonds, 2½%, 1953	July 1938	50,000,000	99	2.83
Notes, 1¼-2½%, 1943-47	July 1938	35,000,000	100	1.75-2.50
Notes, 1¼-1½%, 1943-47	July 1940	35,000,000	100	1.25-1.50

100,000 Debentures; 3%, 1961, sold privately to Rockefeller Foundations.

Source of data: Moody's Manuals of Investments, 1931-40 (Industrials).